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Original Communications

JOHN PETER METTAUER, A. M., M. D., LL.D.,—A COUNTRY SURGEON.*

By W. L. HARRIS, M. D., Norfolk, Va.
President, Medical Society of Virginia.

The art of living has always been man's preoccupation and has afforded him constant and unlimited interest. This interest is increased by the opportunity he has of looking into the past and of learning how others have "turned the trick" called living. Biography has now reached a high degree of development; this is the best proof that man is unable to build his life on the present alone or the hope of the future. He must still refer to the past for stimulation and encouragement. So it is in medicine, and I am assuming that you will bear with me while I am giving you something of the life of a man whose name is not written on the scrolls of fame, but who, nevertheless, was one of the master surgeons of America one hundred years ago.

After the battle of Yorktown, Lafayette's command was quartered in various parts of Virginia. One regiment was sent to Prince Edward County; and attached to this regiment was one gallant young French surgeon by the name of Francis Joseph Mettauer. He was so fascinated by the rural life in Virginia and the opportunity it offered for a physician who wanted to work, it did not require much persuasion for him to decide to remain when the troops embarked for home. He later married Eliza Gaulding, and to them was born, in 1787, a son, John Peter Mettauer, the subject of this brief sketch.

Nothing specially is recorded of the early life of young Mettauer other than the fact that he was a diligent student. He was reared in an atmosphere of culture and refinement, in a neighborhood inhabited by some of the best people in Virginia, such as the Johnsons, Egglestons, Henrys, Lawsons, Randolphs, Morrisons, Atkinsons, Venables, and many others of equal note. He was sent early to the neighboring college of Hampden-Sidney, and received his A. B. degree there in 1806, when only nineteen years of age. He proceeded at once to the University of Pennsylvania, and received his M. D. degree in 1809. Young Mettauer studied medicine under the most favorable conditions obtainable in America at that time. The medical department of the University of Pennsylvania was founded in 1791, and it had as professors some of the best trained and most brilliant men of the profession of that date, such as Rush, Physick, William Shippen, Jr., Wistar, and others, and the influence of these men, no doubt, had a wonderful bearing upon young Mettauer's subsequent career. Young Mettauer took advantage of his opportunities while at college, and soon attracted attention by his diligent and studious habits. After his graduation one of his teachers, Dr. Wistar, congratulated him upon the excellence of his examination and said, "My young friend, you have the means of success in your hands. Keep up your studious habits and nothing but sickness or early death can disappoint you." So it will be seen that young Mettauer was launched into his life work with every equipment necessary for success.

He had one brother, Francis Joseph, Jr., who graduated in medicine at the University of Pennsylvania in 1811, and located in Petersburg, Virginia.

When young Mettauer returned to his native county, his father was still enjoying a large and lucrative practice. Young Mettauer had the enthusiasm of youth and a wonderful equipment for those times, so it is easy to fancy what a help he must have been to his father. He had been in practice only about three years when his father died, in January, 1812, leaving him heir to a large practice, and a joint heir to a very comfortable estate. The war of 1812 was declared about this time. Anxious for an opportunity for service to his country and the experience that he thought the war might afford, he came to Norfolk in 1812, and was located here for two years. Well trained physicians were scarce in those days, and disease was rampant, so Mettauer found just what he was looking for, namely,

*Address of the President before the fifty-seventh annual meeting of the Medical Society of Virginia, at Norfolk, Va., October 12-15, 1926.

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work. Some of his papers refer to the great amount of work he did here—"Up at 6 A. M. and worked continuously till midnight." However, he must not have worked all the time, for he found time to woo and win his first bride, who was Miss Woodard of this city. After the war he returned to his native county and settled down to what was destined to be his life work. He soon demonstrated the type of man he was; his work grew by leaps and bounds, and it was not long before he was a very busy man. He, of course, had to do general work in the country, but his most brilliant work was in the line of surgery.

He soon began to attract attention, not only by his brilliant surgery, but by his writings, and it was not long before his fame began to spread through the adjoining counties, and subsequently throughout the south and the whole nation. Patients began to come to him in ever increasing numbers from a distance, and as he had no hospital at that time, he had to utilize the inns and taverns both at Prince Edward Courthouse and at Kingsville, a cross road village about a mile from his home, and in Farmville, six miles away, to accommodate his patients. Practically all of the better class of private homes in the neighborhood at times also helped to house his patients.

A college course in the first half of the 19th century was expensive, and not obligatory. To have "read medicine with a doctor" was all that the law required for the granting of a license to practice medicine. In a doctor's office there were usually one or more students whom the doctor taught what he knew to the best of his ability; what they learned depended upon their own. Dr. Mettauer's fame soon began to attract so many students that they became almost a burden to him. To have been in close contact with a man of Dr. Mettauer's type was indeed an inspiration to any much in earnest student, and no doubt they vied with each other in making themselves useful in attendance to every minor and routine service in connection with Dr. Mettauer's ever increasing practice.

In 1835, Washington Medical School of Baltimore (incorporated in 1827, amalgamated with the College of Physicians and Surgeons 1877, which in turn was later, 1916, amalgamated with the University of Maryland), a new and growing school, offered the chair of surgery to Dr. Mettauer, and he accepted this and taught there for two years, resigning in 1837, and returned to his native county. Think of a progressive medical college in a large city going out into the remote country to find a professor of surgery! It shows clearly how he was regarded in those days. It is not recorded why he resigned, and his resigning would naturally surprise you, for it would seem that this was just such an opportunity as a man of Dr. Mettauer's type might have been looking for. It could hardly have been because he failed to give satisfaction to the school, for he was not only a profound student of medicine, but also a brilliant operator as well as a wonderful teacher. Perhaps he did not like the way they did things in Baltimore, for as we shall see further on, he was not only a very sensitive man, but very pronounced in his likes and dislikes. He would tolerate no nonsense. Perhaps he was lonesome for the country, or perhaps he concluded that the city was no place in which to bring up a family. He was a widower when he went to Baltimore, but he was not so busy while there that he could not find time to become interested in finding another wife. He married a charming woman from Connecticut and returned to his native state and county and located there for life. He was never happy away from his native county.

Soon after he returned from Baltimore, he determined to formulate his ever increasing number of students into a teaching unit, and called it the "Prince Edward Medical Institute." There were few medical schools in the country at that time, and only three in the south, so this little school was not formed for profit, or through personal vanity, but simply to serve the cause of humanity. The country needed trained doctors, and if he could assist in supplying these, even in a very modest way, he was willing to undertake this extra burden of teaching. He would not even call it the Mettauer Institute, which would have been only natural, but preferred to be loyal to his old county, and called it the "Prince Edward Medical Institute." He worried along with this Institute single-handed, doing all the teaching himself until his two sons, Francis Joseph and Henry Archer, graduated and joined the teaching staff. In 1847, Dr. Mettauer made overtures to Randolph-Macon College (located at that time at Boydton, Va., fifty miles away) to take over the Institute, which was done, with the understanding that this medical department might be moved to

Norfolk or Petersburg at some future time if thought desirable. It was successfully conducted as the medical department of Randolph-Macon College till the Civil War, when it was closed and never opened again. To quote from the annual announcement for the session 1851-52, "In issuing this circular, the trustees feel authorized to state that superior advantages are presented by their medical school for acquiring a thorough knowledge of medicine in all departments usually comprised in the curriculum of study of the best medical institutions of this country. The great length of the session (ten months), the practical manner of the teaching, the experience of the faculty both as physicians and teachers, and the remoteness of the school from the scenes of dissipation and extravagance, they hope will commend itself favorably, at least to parents who desire their sons educated as physicians free from the contamination of city customs. This school has been acknowledged by the most distinguished medical institutions of the United States; among them may be mentioned the Jefferson School in Philadelphia, the University of New York, and the University of Louisville, and its students admitted by these schools in the *ad eundem* footing, and the trustees confidently believe that its course of instruction will compare favorably with that of any medical school in the union for its thoroughness and extent, as well as for the high grade scholarship of its pupils." After describing further the methods of clinical bedside instruction, both medical and surgical in the infirmary, it says "surgical operations are performed daily in the neighborhood, to which all students are general admitted."

Many brilliant students no doubt, who could not afford a further education, went into active practice from this small, but very excellent school, and, no doubt, were able to render valuable service to humanity. The faculy was small, composed of three Mattauers. Dr. John Peter Mettauer showed clearly he had no single track mind, for he was professor of medicine, surgery, clinical medicine and clinical surgery, obstetrics and pathology. Many distinguished Virginians attended this small school. One I may mention especially, the late Dr. Oscar Wiley, an ex-President of this Society, who graduated from this small college in 1851, and from Jefferson in 1852. Through his son, Dr. Minor Wiley, of Salem, Virginia, he has given us an excellent idea of the thoroughness of the Mettauer school, and of how favorably it compared with the best he saw at Jefferson.

In recognition of his scholarly attainments, Hampden-Sidney College, in 1839, conferred the degree of Master of Arts upon Dr. Mettauer, and subsequently he received the degree of LL.D., but from what College I have been unable to ascertain.

Dr. Mettauer was the first surgeon in this country to use the metal suture for the vesico-vaginal operation, although Dr. Marion Sims is usually given the credit for this discovery. I wish to quote from Dr. George B. Johnston, who looked up the literature on this question twenty-five years ago: Sims says in part—"In 1845 I conceived the idea of curing vesico-vaginal fistula." Mettauer's first reference to the matter appeared in the *Boston Medical and Surgical Journal*, volume twenty-two, page 154, twelve years before Sims' communication, and it clearly outlines the operation which ought always to be associated with his name. In the *American Journal of the Medical Sciences*, new series, volume 14, page 117, five years before Sims' communication, Mettauer says, "I am decidedly of the opinion that every case of vesico-vaginal fistula can be cured, and my success justifies the statement." He made his own lead sutures at first, and later his silver sutures. He had a mechanical work shop adjoining his office, in which he fashioned many new instruments for his work.

In the remote country sections any physician could practice medicine, but few attempted anything other than the most ordinary surgery. Dr. Mettauer seemed to have a special gift of dexterity with all kinds of mechanical appliances, and with his knowledge and enthusiasm, he made a great success of surgery. His greatest working period, from about 1825 to 1850, was before the days of anaesthesia. Surgical operations were then tortures to the surgeon as well as to the patient, and the strain upon him must have been fearful. As abdominal surgery at that time was in its infancy, his surgery was confined chiefly to amputation of all kinds, bladder surgery, all kinds of plastic work, and last—but not least—the operation for cataract. It is recorded that he performed over eight hundred operations for the removal of cataract, and he was no eye specialist either, which should make some of our present day eye surgeons sit up and take notice. He had none of our modern instru-

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ments, nor did he even have cocaine; the wonder is, "how did he do it?" He made most of his own instruments for this operation. It is almost impossible for the present day physician to realize what an amount of work Dr. Mettauer, single-handed, was able to accomplish. He was most exact and methodical, never slurred over anything, and kept wonderful records for his time. It is recorded that at the height of his fame he had constantly under his care from forty to sixty surgical cases. He performed over four hundred operations for stone in the bladder; over two hundred for urethral stricture; and his operation for cleft palate was clearly the first of its kind in this country. He performed this operation often and his results were good. His instruments for this operation also were of his own invention.

Most of his operations were performed, not in a hospital, but chiefly in the patient's room, and it is said that his results were remarkably good. They must have been, for the surgeons here will tell you that a surgeon cannot build up a reputation, in the country districts especially, on failures. Dr. Mettauer had to operate under what would now seem almost insurmountable difficulties. He had no anesthetics, no trained assistants, no trained nurses, though an abundance of good and loyal helpers. He had no X-ray or laboratory to help him in his diagnoses. He had no antiseptics, no bath tubs, no sewer system, no screens to protect from flies, no electric lights, not even lamps, but old fashioned candles supplied most of his light at night. Infection was the thing to be dreaded in those days. Dr. Roswell Park, in his History of Medicine, records that as late as 1876, in the best hospitals in this country, as well as abroad, that at times 90 per cent of all patients operated upon subsequently died of blood poisoning.

In addition to his enormous practice, Dr. Mettauer found time to do a wonderful amount of writing. He wrote on almost every branch of medicine and surgery that was of chief interest in his day, and his articles were published in the best journals of this country. Among some of his best essays may be mentioned the ones on yellow fever, remittent and intermittent fever, continued fever, typhus fever, Asiatic cholera, congestive chill, cystitis, vesico-vaginal fistula, hare lip, cleft palate, amputation of the scholder, ligation of the carotid, and puerperal fever. His clear, exact and complete description of disease was simply marvelous. He left out nothing. Many of his essays are masterpieces. He had great respect and a mortal dread for puerperal fever. It is said that one of his wives died of this horrible disease, and it made an everlasting impression upon him. One of his best essays, written just before he died, and when he was in his eighty-eighth year, was on the subject of puerperal fever. He begins with a review of the sad history of this horrible malady and says they practically all die; then he reports a few cases, one of which recovered. When he first saw this case on the third day after delivery, realizing her desperate condition, he says he determined to bleed her nigh unto death;—this he did, for his description of her collapse leaves no doubt in our minds as to how close unto death she came. He then describes how she rallied. She lived a long ways from him in the country, and he did not see her again for two days, when he repeated the performance, and she recovered. He believed strongly in drastic purging as a preventive, and bleeding as a curative measure for this malady.

In addition to his voluminous articles for current journals, he left an unpublished manuscript of 3,000 pages on surgery, written on the old blue legal cap paper of his day. This book shows its author had a very clear and comprehensive idea of the surgery of his day, and an intimate acquaintance with the best literature of the times. It is not now known why this book was never published; it was clearly not on account of lack of funds.

Dr. Mettauer did not believe that a man was made to live alone, for he was married four times, and was the father of thirteen children. Several of his children died in infancy or when quite young, but he had enough left for a large family. He had only three sons, all of whom studied medicine. His eldest son, Francis Joseph, practiced medicine in Prince Edward County, and survived his father. His next son, Henry Archer, lived in Prince Edward until after the war, and then located in Macon, Georgia. His third son, E. Munford, after graduating in medicine at Jefferson in 1851, went to Florida to locate; died quite young, and was buried there. His sons, Joseph and Archer, are buried by the side of their father in the cemetery at Hampden-Sidney. None of his sons ever married; hence, there is no descendant of Dr. Mettauer to perpetuate the name. Many of his daughters were mar-

ried, and there are a few of his grand and great-grand children now living in Prince Edward. I asked an old friend who knew Dr. Mettauer well the last thirty years of his life if the doctor lived happily with all these wives, and he said, "Oh, yes, they all died a natural death."

Dr. Mettauer never made his daily rounds on horse back, as was the custom in his day, but always went in a comfortable carriage drawn by a handsome span of horses, driven by his negro coachman. Dr. Mettauer always read while driving. The roads were bad and travel was slow; hence, he could not afford to lose valuable time. It is said he was ever busy, always in a hurry, walked rapidly, and had little to say to anybody except strictly on business.

When, amid the scenes of his life work, if you mention the name of "old Doctor Mettauer" (as he was familiarly known) to any of the older natives, they will smile and show an immediate interest to tell you all they know about him. They will begin by saying, "he was a great man, but peculiar." He is recalled, not alone for his wonderful work as a surgeon, but for many of his outstanding characteristics, which tradition has added to, no doubt, to make good stories.

Dr. Mettauer, burdened with so many eccentricities which genius always imposes upon her subjects, was a unique character. Many stories are told of his peculiar habits,—some are true, and, no doubt, many are untrue. The one that every body will refer to was his habit of always wearing a big stove pipe hat, even to his meals. The old man had a very good reason for this,—he became bald early in middle life, and was forced to wear a wig. He was always very sensitive, and scrupulously immalculate in his dress, so he chose to wear the high hat to save the ridicule of the wig. He always wore kid gloves while lecturing. This may have been to keep his hands in condition for delicate surgical work, or it may have been to conform to his peculiar ideas of dress.

The habit of not going to church was also a source of comment and wonder, for he was not an irreligious man, but, on the other hand, a very religious man except for the church going. He attended church regularly when he was young. The cause of his staying away when older came about in this way: his father built a Methodist church just across the road from the old home site, as a memorial to his wife, and this church was used for years, but, finally, the Methodists decided to tear it down and move to a more accessible place. This was done over the protest of Dr. Mettauer. He felt so aggrieved that he never went to church again.

The remarkable thing about Dr. Mettauer was that he chose to content himself with a life in the country, far removed from any city, but it must be recalled that country life in his day was not what it is now. The aristocracy of the south lived in the country at that time, and they pitied anybody who was forced to live in the city. A man of his ability could have been a shining light in any city. However, he did not mix well with strangers. He had his life-long friends in the country, and when he stayed away for a short period he longed to return, and seemed lonesome for his old county. His love for his old county was almost a passion.

He was a great student and kept abreast of the times. He regretted that he was never able to go abroad and come in peresonal contact with the masters in medicine of his day. Early blessed with a large family, and burdened with more work than he could attend to, he felt that he could not afford to take the time to go abroad. He was a great admirer of Louis, the noted French physician who was doing so much for medicine in the second quarter of the nineteenth century, and there is frequent reference to Louis in many of his essays on medical subjects.

Dr. Mettauer was modest and retiring in his manner, and seldom entered into controversy; his patients adored him, and he made ever fast friends through his patients. His ability and devotion to duty, all admired. He was a man of few words; he enjoyed work and was always busy attending to his own business.

Dr. Mettauer was born and lived his entire life, with the exception of the few years he was away, in the old homestead of his father by the road side about half way between the old village of Prince Edward Courthouse (now called Worsham) and the cross road village of Kingsville. He was fond of his home, and devoted to his large family. Advancing years seem to have brought few of the infirmities of age, for it is recorded that in the last week of his life he performed three surgical operations; an amputation of the breast,

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the removal of a stone from the bladder, and the removal of a cataract.

While still in active practice, and in his eighty-eighth year, he was seized with acute pneumonia and died within three days, on November 22, 1875. How he could have lived to reach the age of eighty-eight, still hale and hearty, seems hard for us to understand. It is needless for us to say he had a rugged constitution, and he must have taken wonderfully good care of himself. We must conclude that physicians were not harassed in those days as they are now in these hustling and progressive days,—but we must also realize that in those good old days a doctor could not get rid of a troublesome patient by sending him to a specialist,—he had to worry through with him to the end. Dr. Mettauer had this advantage; he practiced in the quiet solitude of the open country, away from the madding throng,—not hampered by custom, not disturbed by phones, street cars, trains, automobiles, graphophones and radios. He could get up early and work late, and had no social or civic duties to disturb his life.

His life was not without the pin pricks of professional jealousies, for any man doing the work that he did would naturally have some knockers. He was very sensitive, and felt keenly the slight of his fellow physicians sending away for a consultant when he was so close at hand. He was very outspoken when necessity demanded it, and did not hesitate to speak his mind. On one occasion one of his neighboring physicians sent to a distant city for a consultant to see a patient who was desperately ill, and later, when the patient was moribund, Dr. Mettauer was called in. After an examination of the patient, he said to his fellow doctor, "It is a shame to let prejudice cause the death of such a fine woman."

A man must be judged by his times and his surroundings, and I am sure all will agree that Dr. John Peter Mettauer was a very remarkable man, and that the work he accomplished single-handed in those pioneer days in the second and third quarter of the last century clearly entitles him to rank in medical history with Mott, Dudley, Sims, and McDowell. I deem it a special privilege to have been allowed to recount some of the deeds of this grand old man, and express, though in a very feeble way, our sense of the value of his work and the lessons of his long and busy life.

Medical Arts Building.

THE PHYSICIAN AND THE PHARMACIST.*

By WORTLEY F. RUDD, M. A., Richmond, Va.
From the Department of Pharmacy, Medical College of Virginia.

As instructor in chemistry for a quarter of a century it has been my privilege to teach students of medicine, dentistry and pharmacy. Only since fundamental chemistry has been a premedical requirement have my teaching contacts been limited to students of dentistry and pharmacy. This long experience with young men and women preparing for these three professions—a contact frequently continued well into the life work of former students as they have gone out into the practice of their separate professions—and my reflections resulting therefrom constitute my only reason for discussing very briefly some of their problems before the Medical Society of Virginia.

It is perhaps trite to say that there is but one reason for the existence of physicians, dentists, pharmacists and nurses, viz., that the public may have better health. Whenever members of any one of the groups lose sight of this objective, public respect for such individuals or groups is correspondingly lowered.

If these groups are, and I believe they do, constitute component parts of an ideal health unit, it is likewise manifest that any failure in team work among them must result in delay and waste of effort, and is, consequently, a net loss to society.

I am of course aware, and regretfully so, that there has been little conscious effort to integrate these forces for the common good. The very great difference in the educational background and professional training obtaining among the groups in the past has given rise to such class distinctions that the groups themselves have almost lost sight of the fact that they have a common objective. I think it but fair, too, to say that the wave of commercialism that has swept over the field of pharmacy, almost burying its professional activities in many instances, has been a damning influence which has frequently largely negatived the struggles which the idealists in pharmaceutical education have made to keep the moorings of pharmacy safe.

Did I not believe that the peak of this wave has already been reached, and that in the offing is the promise of a clearer understanding on the part of the pharmacists themselves of their professional obligations and oppor-

*Read at the fifty-seventh annual meeting of the Medical Society of Virginia, in Norfolk, October 12-15, 1926.

tunities in the whole health program, I would not have the temerity to suggest that the physicians of the State recognize and encourage the pharmacists in their attempt to share more in the health work in which physicians are the recognized leaders.

It has been my privilege to observe at close range the throes through which medical education has passed since the beginning of the present century. It has come through quite successfully. Dental education is just emerging from a similar revolutionary process. Pharmaceutical education is now just at the threshold of a change which gives great promise of training the pharmacist of the future, so that he will be a much larger factor in health problems than he has been in the past.

Four years ago one of the great foundations, the Commonwealth Fund, undertook a study of pharmacy to determine its real status. Dr. W. W. Charters, one of America's leaders in such investigations, was in charge of the study, and in the final draft of the full report of his committee which is now in press, he has this to say about pharmacy:

"After a careful study of the pharmacy curriculum with an open mind for a period extending over more than two years, the director of the study is definitely convinced that pharmacy is a profession rather than a trade. Conspicuous among the duties of the pharmacist is the group which deals with public health. A well-informed pharmacist is the best single individual to disseminate information about public health."

Naturally such findings from so authoritative a source as the Commonwealth Fund have made a profound impression upon all of those primarily interested in the training of the pharmacist of the future. Pharmaceutical educators who have given serious consideration to these problems for the past decade were already basing curricula upon such a presumption. You may be interested to know that in your own state school, graduates in pharmacy must have a minimum of three years of professional training, in addition to four years of high school work, and a number are taking the four year course now offered, and receiving the Bachelor of Science degree upon its completion. Three of the pharmacy schools of the country are offering the four year course only, and the American Association of Colleges of Pharmacy is taking definite steps to have the four year pharmacy curriculum the minimum requirement for the training of pharmacists.

I am bringing these things to the attention of the physicians of the State because you should know that the pharmacist you will work with in the future is going to be trained to render an entirely different type of service from what he has been trained to give in the past.

Until recent years rather sharp distinctions have been drawn between medical and dental education, chiefly on the ground of the differences in the biological point of view of the training required for these two professions. Even a greater distinction has been made between these two professions and pharmacy.

It may interest and even surprise you to know that today the better schools of pharmacy give strong courses in general biology and botany and some work in other biological sciences, including physiology, pharmacology and bacteriology. In many schools, including our own, these courses are taught by the departments giving the same subjects to medical and dental students, but not in the same classes.

I think it but fair to say in this connection that the pharmaceutically trained man probably knows more fundamental chemistry than the average man in the other medical sciences. Biological chemistry is being added in the three year curriculum.

More than twenty years ago I heard one of America's prophets, Dr. Harvey W. Wiley, say in an address to a large group of physicians, dentists and pharmacists, both students and practitioners, that the youngest of them would live to see chemistry recognized as the corner stone of all medical practice—that even bacteriology and pathology would be as much chemical subjects as bio-chemistry was then. Already we are seeing some of this come true, and the sound training in chemistry which the pharmacist is receiving fits him admirably for the new point of view.

These facts regarding curricula are cited in detail that you may know how rapidly the educational background in pharmacy is changing. From a purely vocational training a decade ago, we now are putting it on a definitely scientific basis. Realizing this, I am now speaking for this new type of man that will soon be among you. He is already on the way. He is being trained in the same environment with physicians, dentists and nurses.

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having, in many instances, the same instructors and, therefore, getting the same ideals of service. He will know well his part in the program of health. There will not be a great many of them, probably fewer and fewer as the years go by, thus gradually enlarging the professional opportunity of the individual as competition becomes less acute.

This is a large program, much more difficult perhaps than the one that confronted the medical profession thirty years ago, or the dentists within the past decade. It is, however, a fundamentally sound program and, therefore, must not, I am even constrained to say cannot, fail. May we not hope that right here in Virginia where we have almost ideal conditions for team work among all of the groups having to do with public health problems, we may set an example in integrating all of our forces to the end that each group shall, in its own sphere, not only fulfil its own function, but complement the efforts of the other groups.

DISEASES OF MIDDLE LIFE—CAN WE PREVENT THEM?*

By M. O. BURKE, M. D., Richmond, Va.

Diseases of middle life, or the diseases from which far too many people die between the ages of forty and sixty years, are classified as preventable, such as respiratory contagious and infectious diseases, and unavoidable, such as cardio-vascular-renal diseases and nervous and mental diseases. The unavoidable diseases are really diseases of old age.

Hygiene and preventive medicine have increased the average life about twenty years, and have decreased the general annual death rate per 1,000 about 2 per cent. This has been accomplished in the first to the third decades.

The death rate from forty to sixty has constantly increased during the last twenty years, and markedly so in the last five years.

The Report of Mortality Statistics by the U. S. Government is as follows:

1913—Deaths from all causes 14 1 per 1,000
1923—Deaths from all causes 12.3 per 1,000

NON-PREVENTABLE DISEASES OF MIDDLE LIFE
1913—2.87 per 1,000
1923—3.80 per 1,000

This shows an increase of nearly 33 per cent.

DEATH RATE PER 100,000

	1922	1923
Nervous system	124.1	128.1
Circulatory system	190.8	200.9
Diseases of the heart	148.4	157.3
Chronic nephritis	82.4	83.9

*Read at the fifty-seventh annual meeting of the Medical Society of Virginia, in Norfolk, October 12-15, 1926.

The death rate between the ages of forty and sixty in 1923 was almost double the rate in 1910.

We do not know how many of these people who died before sixty contracted their trouble in early life.

We cannot prevent ultimate death, nor can we prevent old age. Can we not defer the over-powering effects of degeneration until after middle life?

CAUSES OF DEGENERATIVE DISEASES

Dieblafoy, Hewlet, Osler, Piersol, Pepper, Thayer, Wells and practically all of the teachers of medicine give as causes of degenerative diseases:

Heredity
Specific or infectious fevers
Chemical poisons
Focal infections
Excessive mental and physical strain
Over-indulgence in food
Alcohol, tobacco, coffee and tea (these four causes have not been accepted by all.)

ENDOCRIN GLANDS

Metchnikoff believed that the seat of old age was in the colon, resulting from constipation; this has not been definitely proven.

"Since many of the obnoxious products of metabolism are eliminated through the bowels, failure of elimination through this channel may lead to a true auto-intoxication as much as may deficient renal elimination" (Wells).

Physical and mental fatigue produce poisons which may cause trouble.

Again, Wells tells us that cirrhosis of the liver, chronic nephritis, myocarditis and arteriosclerosis may be due to long-continued non-alcoholic intoxications.

Most authors intimate that degenerative changes begin in the capillaries.

As physicians, can we help to defer old age? Possibly,—if we could teach the people hygiene, how to eat, how to work, how to play, and how to rest. If we could decrease the non-essential strain of modern life, we could accomplish much toward old age deferred.

I have chosen this subject, first, because it is the largest unexplored field in preventive medicine; second, because I hope to arouse a discussion by this Society and to obtain the valuable lessons taught by the experience of its members.

People have been seeking the Elixir of Youth from time immemorial as they have been seek-

ing happiness for the same length of time, forgetting the fact that the secret of happiness is a state of mind and the Elixir of Youth is a state of health. Both are within ourselves and must be cultivated from an early age. Both are somewhat dependent upon heredity.

Heredity we cannot avoid, but we can help future generations, and to a certain extent lessen the stigma within ourselves.

The diseases of middle life are really the diseases of old age.

Old age must come to all, but to far too many it comes too soon.

The man or woman who reaches the age of maturity without organic trouble should live to be four score years or more. Middle life is the most important part of life. It is the time when men and women are most necessary to the family, to the community, and to the State at large. Work, recreation and rest should be judiciously distributed during this time if we wish to reach a natural ripening in the harvest of years.

Some of the diseases of middle life are contracted in childhood, hence the importance of watching the convalescence of all infectious fevers in children: colds and sore throats should not be treated lightly. Focal infections should be cleared up as soon as possible. All dead tissue begins to disintegrate soon after it dies and should be removed.

Periodic examinations from chilhood to old age would reveal many troubles in their incipiency and should prevent much suffering and prolong life.

204 *East Franklin Street.*

THE SURGICAL MANAGEMENT OF HANDICAPPED TOXIC GOITER PATIENTS —WITH ILLUSTRATIVE CASES.*

By LINWOOD D. KEYSER, M. D., Roanoke, Va.

At the present time we are passing through an era of rapid development in the treatment of thyroid disorders. New classifications in the light of biochemical and clinico-pathological studies are constantly being brought forward. These helps at times to clarify, but may also serve to confuse. For instance, a few years ago Plummer differentiated toxic adenoma and exophthalmic goiter as disease entities. For a time the pathologic status of toxic goiter seemed clear. Within the past month there have appeared two articles, one from Rienhoff, of Baltimore, and another from Allan Graham, of Cleveland, which strongly infer, if they do not declare, Plummer's concepts to be somewhat erroneous in that they hold toxic adenoma and exophthalmic goiter to be different phases of the same disease.

In going from one great goiter clinic to another, one cannot help being impressed with marked divergences of opinion as to the etiologic, pathologic, clinical, and therapeutic features of thyroid disease. However, in the main, all are handling toxic goiter patients on much the same basis, and the great reduction in mortality from the disease cannot but make us feel that real progress is being made.

Within the past two and a half years we have treated by surgical methods some twenty rather unusual goiter patients. Fourteen of these patients have presented certain pathologic features, the presence of which made their management somewhat more hazardous than usual, and taxed our therapeutic resources to the utmost in getting a satisfactory end result. Time will not permit giving each case history in detail. One had an obstructive type of non-toxic adenoma complicated by a four months' pregnancy. Another presented the same condition with hypertension of 220 systolic over 140 diastolic pressure, with cardiac hypertrophy and dilatation. Two patients suffered from recurrent adenomata following excision a number of years previously. One of these, 63 years old, suffered from a manic psychosis. Both had had hyperthyroidism over a number of years and obtained satisfactory results from thyroid excision. The second patient, aged 50 years, had paralysis of the right vocal cord from her previous thyroidectomy. Another patient had a dilated aortic arch and toxic adenoma over a period of four years. Three patients of the series had definite attacks of cholecystitis during the post-operative course, and one of these has stood cholecystectomy two years later, with benefit. Nine patients of the series had severe hyperthyroidism of over five years' standing, and marked visceral degenerative changes—such as cardiac hypertrophy and dilatation in all degrees, albuminuria, emaciation, and the like—were present. Two of these presented themselves in a state of fibrillation. Our sole death in the series came in one of the fibrillation cases in which the heart filled the chest out to the axillary line. Her hyperthyroidism was not so extreme following operation as to warrant

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death, but, following the reaction from an intravenous saline infusion, cardiac failure took place. These nine neglected cases form the basis of what we are about to say. None of them can be considered completely cured, as the toxemia had been present entirely too long, and the cardio-visceral changes were of such extent as to not allow complete restoration to normal.

In the preliminary treatment of such handicapped cases, hospitalization, bed rest, and absolute quiet, are the first factors of importance. Careful detailed history and physical examination with all the resources of a good clinical laboratory are essential in sizing up the patient at the outset. X-ray of the chest, especially fluoroscopy and laryngoscopic examination, are routine. A diet high in carbohydrate, with feedings between the meals, the forcing of fluids, and application of cold over the heart and thyroid gland are carried out. Usually the basal metabolism will drop about 15 points in a few days under such regimen.

In administering iodine, we follow Plummer's advice and give it to all such cases, even if they are of long standing and have had iodine before. In cases where iodine has been administered previously, as is almost always the case in these medically treated and surgically neglected types, the response to Lugol's solution is slight in comparison with recent cases of hyperthyroidism where its use is attended with brilliant results. Especially in the adenomas have we failed to note much improvement, and this is the usual but not the uniform opinion of others. Where the condition of exophthalmic goiter has been present for a numer of years, with many crises and remissions and the taking of much medicine and use of local applications, we have noted little response to iodine in the pre-operative course. It has been thoroughly tried in every instance and has not seemed to aggravate the symptoms, while in a few instances the basal rate has been reduced and the patients' symptoms have improved in striking manner.

As for the use of digitalis, both pre-operatively and post-operatively, we have employed it in all toxic cases. However, we must admit not being quite happy in its usage, and there is a tendency at the present time to dispense with digitalis in thyroid therapy in several of the larger clinics. It is held that digitalis is really of no avail and that it makes a poor risk from the cardiac standpoint temporarily appear better than it really is. However, the majority of thyroid therapists still hold out for digitalis when there is cardiac decompensation, dilatation, or auricular fibrillation. We are watching the trend of opinion closely along this line, but, to date, we have not developed the courage to omit digitalis from either pre-operative or post-operative treatment. Furthermore, we employ it in rather large doses. We can but believe that the myocardial tone is bettered, the volume output of the ventricles is increased, and, on the whole, the heart is better enabled to withstand the strain of those dubious forty-eight hours that follow operation. Of course, it has long been known that digitalis will not markedly decrease the tachycardia of the post-operative hyperthyroid reaction.

As for ligations, it is well known that they are of little avail, or worthless, in the case of the adenomatous hyper-functioning goiter. In the mixed types, or in cases of long standing exophthalmic goiter which have made little improvement on iodine administration, we have practiced bilateral superior thyroid arterial ligation. The results here have been, at best, just fair, and nothing like so striking as those obtained in cases of shorter duration. In these latter cases, iodine usually does all that is necessary in bringing about involutional change, and ligation is rarely necessary.

In choosing the time of operation, nothing in the field of surgery requires more careful consideration of detail. We try to catch these patients on the up-grade. Pemberton advises that after the peak of improvement has apparently been reached, to wait for a period of four or five days and then operate. To get the patient in the best mental state, with the lowest possible basal metabolic rate (under forty, if practicable), the slowest pulse rate, and the best weight, should be our aim. In cases going down hill in spite of every effort, extended over a period of a month or more, we are sometimes forced to take a chance.

As for the operation itself, we have varied the technique to suit the case. A number have been operated on satisfactorily under cervical plexus block anesthesia. This is time-consuming and the psychic strain is great, so that lately we have employed, more and more, infiltration anesthesia with ¼ per cent novocaine (without adrenalin) and light gas anesthesia—started immediately after the patient has been put in position.

Preliminary morphine-atropine hypodermic medication is used. In one case we have

given light gas anesthesia for several days preoperatively, but we do not thus "steal the goiter," as Crile advocates, in our usual case. Good exposure, careful symmetrical placing of the incision, gentle handling of the tissues, the avoidance of pressure, and careful hemostasis, with the reasonable use of time and yet no effort at speed, have been the ideals toward which we have strived. In long neglected cases we have tried to excise all of the gland except just enough to protect the recurrent nerves and parathyroids. Suture of the capsule over the parenchyma anteriorly, and of the pretracheal muscles to this, with fine suture, has been practiced. We have had to place paratracheal small guaze packs in several cases. We have had no pneumonia, no tetany, no hemorrhage of importance, and no loss of voice, even temporarily, in this short series of cases. Careful approximation of the platysma with interrupted catgut, and closure of the skin with interrupted fine black silk stitches has given us a good scar in almost every instance. A small Penrose drain is left in the center of the wound, and if drainage persists or if there are accumulations of serum, we keep this draining through the center of the wound so that the lateral portions of the skin may close by primary union. A large gauze pad with a goiter roll of gauze is bandaged in place. After twenty-four hours, this is cut away without lifting the patient's head, the drain being removed and fresh gauze applied. A wide band of adhesive is plastered face to face. This is slipped around the patient's neck with little disturbance of the head, and serves as a collar which may be fastened with further adhesive strips over the front of the dressing. In this manner, there is little unnecessary motion of the head and neck during the first few days, and, since employing this relatively painless dressing, we have been impressed with the greater comfort of the patient. Dressings are changed daily. In the event of retained serum, with temperature elevation, suppuration or inflammatory edema of the wound, we have used hot compresses of potassium permanganate hourly with good result. However, it is our impression that wet dressings cause some bogginess of the tissue, and a good hair-line scar is not so easily obtained. Consequently, we do not use wet dressings unless absolutely necessary. The occurrence of troublesome mucus in the throat is annoying. Swabbing the throat with gauze, steam inhalations and giving brandy in teaspoonful doses, if well tolerated, or hot lemonade in small amounts, usually controls this. In persistent cases, here, again, the hot pack to the throat is a boon.

Following removal of the patient to bed from the operating room, he is placed in the Fowler position, well supported on pillows. A subcutaneous infusion of saline, 1,800 c.c. in amount, is routinely given. In cases of extreme toxicity, this is repeated in 12 to 18 hours. Likewise, we give 500 c.c. of normal saline by rectum as a retention enema every six hours as long as retained. We try to avoid intravenous therapy as much as possible from the fear of a reaction. Transfusion has not been practiced, but should be resorted to if hemorrhage has been severe or if delirium with its ominous portent appears.

The late Professor Halsted looked with misgiving on the use of morphine during this period, holding that it cut down the eliminative forces of the body. However, at the present day it is held that the quietude of the patient far outweighs any slight depressor effect that morphine may have. We have used it freely and with good effect, giving it in doses of 1/6 grain every four to six hours during the first two days.

Whatever the status of iodine in the treatment of toxic goiter of any type during the pre-operative stage, its use in large amounts during the post-operative period is becoming more and more established. We have employed 30 minims in the 500 c.c. of rectal saline every 6 hours for four doses. If the patient takes fluids well by mouth, we have given it in 10 to 15 minim doses every four hours by this route. This may seem radical and an overzealous application of a good drug, but, if we are to rely upon it at all, why not give it to the limit? Such doses have not proved toxic, and we have not yet had reason to believe that they have been harmful. The post-operative crises of exophthalmic goiter have, we feel positive, been less severe as the result of intensive iodine administration.

Likewise, as mentioned above, we have employed digitalis freely at this time. Digitalin or digifolin is given intramuscularly during the first twenty-four hours, after which the tincture is given by mouth for a similar period. Then it is usually discontinued.

The application of ice-bags to the head, heart, and abdomen are routinely employed. If the temperature mounts to 104 degrees or

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more, ice-bags are applied, in addition, to the flanks and limbs for varying intervals, depending on the condition of the patient. The Crile ice-pack, as such, we have applied once with good result.

Concerning the hyperthyroid reaction we have much to learn. Is it caused, as is usually held, by the squeezing out of toxins into the circulation by operative manipulation, or do we call forth rapid mobilization of the thyroxin stored in the tissues by removing suddenly the usual source of supply? The lessened severity of the reaction produced by administration of iodine or of aqueous thyroid extracts, as practiced by Rogers, might be evidence in support of the latter explanation. At all events, we deal with a profound metabolic shock, concerning which more biochemical investigation is in order.

A word of warning and a plea to the general practitioner and internist is in order. Goiter, exclusive of the colloid type of adolescence, is almost always an indication for surgery. Even the non-toxic adenoma is as serious a menace as a lump in the breast, and its operative mortality approaches that of appendicitis in rarity if done by a reasonably competent man. The administration of iodine, X-ray and other procedures, do accomplish wonders occasionally. I have seen one or two large adenomatous growths recede quickly under iodine locally applied. Just why, and for how long, I know not. These are the exceptions, and in our present day treatment the rule of majorities must guide us.

Toxic goiter, being recognized, should be surgically removed, and the earlier, the better, if the patient is to have his best chance. To the family physician belongs the obligation and the privilege of steering the patient at this time into the proper hands. Likewise, no surgeon should operate without frequent consultation and constant advice of an intimately associated internist. Thus, the patient may, in the majority of instances, be saved from becoming one of such a group as I have mentioned above, with the hazards of delayed surgery and a disease which is insidiously making its mark so deep seated that, even if the goiter is successfully removed and there is operative recovery, they are in a sense left with lowered cardio-visceral function for life.

Shenandoah Life Building.

THE VALUE OF THE HISTORY IN THE DIAGNOSIS OF PULMONARY TUBERCULOSIS.*

By PHIL H. NEAL, M. D., Catawba Sanatorium, Va.

Many advances have been made in recent years in the diagnosis of pulmonary tuberculosis. With the improvement of the X-ray and a fuller understanding of the physical findings, our chances of error have been materially lessened. In spite of this a large majority of the cases of pulmonary tuberculosis are not diagnosed until the disease has progressed to the moderately advanced or to the far advanced stage. Each year there are admitted to Catawba Sanatorium approximately 500 patients. A small percentage of these patients have taken treatment at home for a period of time covering from a few months to a year, but the vast majority enter the Sanatorium shortly after the diagnosis is made. In spite of the fact that we give preference to the early cases, approximately 50 per cent of those entering the Sanatorium are already in the far advanced stage of the disease. This is sufficient in itself to show that tuberculosis is not being diagnosed early enough to give the majority of patients a reasonable chance for recovery.

There are two chief reasons for this sad state of affairs. First, the patient often delays in seeking medical advice; second, the physician too frequently fails to diagnose and to advise the patient properly.

Of course, it cannot be expected that every physician be a specialist in diseases of the chest. It is a human impossibility for any one man to be highly skilled in each and every branch of medicine. Yet it would seem that at least 50 per cent of the cases should be tentatively diagnosed before the far advanced stage of the disease is reached, even without the use of the stethoscope or X-ray.

The purpose of this paper is to deal with only one of the diagnostic procedures, *the history*, which is as much available to the general practitioner as it is to the specialist.

It is the opinion of most authorities on the subject that the history is the most important single element in the diagnosis of pulmonary tuberculosis. David A. Stewart says: "Perhaps the pen is mightier even than the stethoscope."[1] Symptoms certainly precede definite X-ray and physical signs in the great majority of cases, and it is at this early stage

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of the disease that more diagnoses should be made. History taking is laborious, but it is of such great value that no short cuts should be taken. Its importance, at least in practice, seems to be greatly underestimated.

A complete history is logically divided into three parts: family history, past history and present illness. The first will be considered independently; the last two as one, since in all chronic diseases the past history and present illness are so closely interwoven that they cannot be easily separated.

Family History

The family history is of great importance, both in the diagnosis and in the determination of the prognosis. It is generally conceded that tuberculosis is rarely if ever inherited, but familial predisposition to the disease is an acknowledged fact. Of greater importance than this is massive infection as a result of contact with an open case of tuberculosis, especially if this contact occurs during the early years of the patient's life. That the individual is of tuberculous stock is of little significance, unless he has lived intimately with the person suffering with active tuberculosis. But when there has been intimate and prolonged association with the tuberculous patient, especially in infancy and childhood, one is much more liable to develop the disease.

One thousand consecutive histories of patients with definite tuberculosis admitted to Catawba Sanatorium were studied for the purpose of ascertaining the frequency of a positive tuberculous family history. Though the family history might have been definitely tuberculous, no case was considered as positive unless the individual actually lived in the same house with the phthisical person, and unless the association existed for as much as two or three months. Out of the 1,000 cases studied, 520 or 52 per cent gave definite history of tuberculosis in the family. There were 368 or 36.8 per cent whose brothers, sisters or parents had the disease. Husband or wife, uncles, aunts, grandparents and cousins composed the remaining 152 or 15.2 per cent of the positive cases.

Over half of the 1,000 cases studied gave a positive tuberculous family history; and undoubtedly there were many other cases of definite but unrecognized phthisis in the family, which would have greatly increased the percentage of positive cases, if the whole truth were known. To say the least, these figures stress the importance of inquiring into the family history.

Past History and Present Illness

In questioning the patient concerning his past history, it should be recalled that tuberculosis is a relapsing disease with periods of remissions. His present symptoms are often due to a renewed activity of an old tuberculous process. Therefore, it is important to ask questions concerning past illnesses, especially as to "run-down" conditions, repeated attacks of la grippe, bronchitis and the like. Other diseases should be considered also, but it is of especial consequence to note if recovery from any of these diseases has been unusually slow. And a history of ischiorectal abscess or fistula in ano should make us very suspicious of some tuberculous involvement, and calls for a searching examination of the lungs.

Cough.—Of the manifestations of phthisis, cough is perhaps the most common. It usually begins in the early stages and is more or less present throughout the whole course of the disease. It is usually the symptom that first makes the patient suspect tuberculosis and brings him to the doctor's office. There is nothing characteristic of the phthisical cough. Often it is hacking in nature or hardly more than clearing of the throat. Frequently it is so slight as not to be noticed by the patient until his attention is called to it by some friend or member of the family. It may or may not be accompanied by expectoration. If there is expectoration, it may be of any type—mucus, mucopurulent or purulent,—and it has no characteristic color. The cough becomes more pronounced in the later stages and is usually more marked the first thing in the morning. At times the attacks of coughing are so severe as to cause vomiting. In any patient with a cough lasting as much as a month tuberculosis should be suspected and a most searching examination should be made.

Loss of Weight, Fatigue, etc. — Loss of weight usually accompanies active tuberculosis. When there has been a loss of as much as 5 per cent of the body weight during a period of several months, the cause should be thoroughly investigated. Dyspnoea is also an early symptom. Likewise, loss of strength and excessive fatigue, especially the fatigue that is not relieved by the usual rest, are very suggestive of tuberculosis.

Fever.—In the majority of cases the patient has not taken his temperature before consult-

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ing his physician and he rarely knows whether or not he has had fever. Inquiry should be made, however, as to whether the patient has felt feverish or whether there has been a flushing of the face in the afternoons. Too much importance should not be placed on a single temperature reading made in the doctor's office, for the time of day has much to do with the patient's temperature. In addition to this, the excitement of being examined is frequently sufficient to cause an elevation of temperature. The patient should be advised to procure a good thermometer and instructed to take his temperature every two hours during the day over a period of several days. It will be found that practically every case of active tuberculosis gives an elevation of temperature, especially if the patient is going about his usual duties. Accompanying this there is usually an increased frequency of the pulse. An occasional case may progress to an advanced stage of the disease in the absence of fever, but this is indeed a rarity. Fishberg says that perhaps fever is the first symptom of active phthisis, and that the so-called afebrile cases are mostly the result of a faulty technic in taking the temperature.[2]

Dyspepsia.—It is not generally understood that indigestion and general abdominal discomfort are so frequently caused by tuberculosis, even when there is no definite involvement of the gastro-intestinal tract. The dyspepsia is chiefly due to reflex causes. The vomiting due to an irritated throat, and following paroxysms of coughing, is often suspected as being a result of gastric pathology. In many cases of diaphragmatic pleurisy the referred pain over the abdomen is not unlike that due to appendicitis, gall-bladder disease, or gastric ulcer.

Hoarseness.—Whether or not the patient has been hoarse should be considered, but hoarseness in itself is of no great significance unless it is prolonged or recurs frequently. The hoarseness may be due to a definite tuberculous infiltration of the larynx, but in the majority of cases it is probably due to a tenacious mucus covering the vocal cords or to a reflex disturbance of lung involvement resulting in an atonic condition of the cords.

Night Sweats.—Night sweats indicate the presence of some form of intoxication, and tuberculosis is a frequent cause. Though occurring chiefly in the later stages, they are not uncommon in the early stages of the disease. They occur more often during the early morning hours, after the temperature has fallen, but they may occur at any time when the patient sleeps. Sweating may or may not be accompanied by chills.

Pleurisy.—Pleurisy is a common symptom which is often taken too lightly. It is surprising how frequently the story of a pre-existing pleurisy occurs in the history of tuberculous patients. Regardless of whether it be a wet or dry pleurisy, it should be considered of tuberculous origin until definitely proved to be from some other cause. It is important to remember that the amount of pain is no indication of the amount of chest pathology. And the pain in pleurisy may be of any type—severe or mild, sharp or sticking, or simply a dull pain or a sensation of pressure or tightness. Beware of making a diagnosis of idiopathic pleurisy, for in the majority of cases it means tuberculosis. In this regard, J. A. Miller says that: "Of the so-called idiopathic pleurisies, at least 80 per cent may sooner or later be proved to be tuberculous."[3]

Hemorrhage.—Though the spitting of blood has long been associated with phthisis, a review of the histories at Catawba Sanatorium would indicate that there are many among our profession who still do not realize the significance of this symptom. Many of our patients have had definite pulmonary hemorrhages months or even years before their condition was finally diagnosed. Too frequently the patient is given a hasty examination and, because no definite physical signs are heard in the chest, or because the patient appears strong and healthy, it is assumed that the bleeding did not come from the lungs; and the patient, being assured that his lungs are sound, soon returns to his work and does not again seek medical advice until his disease has progressed to a point where the diagnosis is of very little therapeutic value.

It has been estimated that hemorrhage is the first recognizable symptom in at least 10 per cent of the cases. The spitting of blood should be regarded as of high importance. In the vast majority of cases it means pulmonary tuberculosis, even if the patient has no demonstrable physical or X-ray signs of the disease. Dr. J. B. Nicholls, in his wide experience at Catawba Sanatorium over a period of nine and a half years, does not remember a single case of blood spitting which was proven to be due to hemorrhage from the tonsils, pharynx or larynx.[4] This, in itself, should be sufficient to make us extremely dubious when we hear any one say—"No, this blood does not mean any-

thing serious; it did not come from the lungs."

According to Pottenger, "Spitting of blood, when other evident causes have been ruled out, should, without other data, make the diagnosis of pulmonary tuberculosis with no greater margin of error than our most approved laboratory tests diagnose other diseases."[5]

Conclusions

This ends a brief discussion of the most salient points to be brought out in questioning the patient concerning his history. From such a history, we may learn, first, the patient's liability to the disease through familial predisposition and contact, and, second, his subjective symptoms, past and present, which constitute the most important factors in the early diagnosis of pulmonary tuberculosis.

References.

1. Stewart, D. A.: Some Considerations Regarding the Diagnosis of Pulmonary Tuberculosis. *Am. Rev. Tuberc.*, 5:891, 1922.
2. Fishberg, Maurice: Pulmonary Tuberculosis. Lea & Febiger, 1919, pp. 181-185.
3. Miller, J. A.: Nelson Loose Leaf Med., Vol. I, p. 383.
4. Nicholls, J. B.: Personal Communication.
5. Pottenger, F. M.: Clinical Tuberculosis. C. V. Mosby Co., 1917, Vol. II, p. 170.

THE VALUE OF STUDYING THE RENAL TRACTS AS AN AID TO CORRECT DIAGNOSIS OF ACUTE AND CHRONIC DISEASES OF THE ABDOMEN.*

By B. E. RHUDY, M. D., Abingdon, Va.

No originality, or nothing new, is offered in discussing the importance of investigating the renal tracts, either in the acute or chronic abdomen, but an effort is made to call to the attention of this body a few of the simple and comparatively easy studies which may be made in order to arrive at a proper or definite diagnosis, which is always to be desired before determining on any plan of treatment, whether it be medical or surgical.

Realizing that much I will have to say is a familiar subject to many of this audience, it is with a spirit of co-operation for the patient's best interest and helpfulness to one another that we gather in these meetings.

The subjective symptoms requiring thorough investigation of the renal tracts are often difficult to obtain and at times much more difficult to interpret, especially if it be of the right side. Objective symptoms, therefore, should be carefully analyzed; a few pus cells or red blood cells in the carefully obtained catheterized specimen of urine may be the only lead which will be the deciding factor in making an exhaustive study of the renal tracts.

Of course, there are certain diseases of the abdomen, other than of the urinary tracts, in which we may expect to find a few leukocytes and red blood cells in the urine, such as tubo-ovarian disease or an acute post-cecal appendix. On the other hand, a patient may give an indefinite or elusive history of some urinary disturbance, as intermittent frequency, or dysuria, which may have been due to pyelitis, pyelonephritis, stricture of the ureter, or both; or of calculus somewhere in the renal tract, etc.

However, there are cases in which we cannot always eliminate the possibility of a calculus just because microscopic blood is not demonstrated in the urine. Observations on series of cases reported show that blood may be absent in from 14 to 20 per cent of the cases which have renal calculus; this, no doubt, means that the specimens were obtained during the quiescent stage, and, if subsequent examination of urine had been made, the red blood cells would most probably have been found. When pus and red blood cells are present, they should be regarded as significant, and a search to determine the source should be made, although subjective symptoms, such as localized pain or perhaps vesical distress, may be absent. The latter, in the absence of any complicating factors, may be entirely absent unless there is a marked pyuria.

Another symptom or sign in all too many cases which give a history of abdominal pain, perhaps recurrent acute attacks, and one, by the way, which does not reflect any great credit on the medical profession, is that of a scar of a previous operation for removal of the appendix, and the patient gives a history of not having been relieved of his pain. It is not within the scope of this discussion to go into detail as to the methods of investigation and treatment of the renal tracts. The chief point I wish to make, especially, is the absolute importance of regarding the renal tracts with suspicion in a very large percentage of abdominal cases, and that no study can be regarded as complete until the renal tracts have been proven to be innocent.

With the most careful use of the methods that are available by which to locate the pathology, to analyze its character, and to outline its best form of treatment, roentgenological and urological methods are indispensable in a large

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percentage of abdominal cases. A positive roentgenogram is of great value in any case, although a negative X-ray examination in some instances may be misleading if we depend upon the unassisted roentgenogram to decide whether the symptoms are due to a lesion of the renal tracts. However, with the improved technique recently applied, a considerably greater percentage of calculi are demonstrated, but because of their composition or peculiar location, or both, they may fail to show if the study is not carried further. Cystoscopy *per se* is of little value in arriving at a diagnosis of the renal tract, and further investigation is necessary, such as catheterization of the ureters, putting to use the various accessory methods of investigation which often suggest further roentgenological studies, such as pyelography and uretero-pyelography—first with the catheters in place, and after they have been withdrawn.

SUMMARY

Investigation of the renal tracts is of vital importance in many cases of acute and chronic abdominal conditions.

With modern methods of investigation of the renal tracts available, contra-indications are rare.

The patient is entitled to every means of investigation available, in order that a proper diagnosis may be made and measures taken for the relief of the condition present.

VITAMINS, RADIATION AND RICKETS IN THE TEMPERATE ZONE.*

By ST. GEORGE T. GRINNAN, M. D., Richmond, Va.

Amins are so essential to growth that the term vitamin designates certain amins necessary for proper growth in the temperate zone. Fat soluble A vitamin has been extensively studied, and the cause of rickets and certain eye diseases is now known to be a lack of vitamin A in parts of the temperate zone.

Nearly all rickets occurs in the Northern Hemisphere between latitudes 30 and 60. Latitude 30 passes through Northern Florida and New Orleans. Latitude 60 strikes Cape Farewell, Greenland. We must remember that New Orleans is half way between the equator and Cape Farewell, Greenland. The west coast of the United States has less humidity, more sunshine and a warmer climate than the East Coast. People, therefore, stay out in the open more and get more radiation and the children have less rickets on the west coast.

In Europe, latitude 30 has brilliant sunshine. Cairo, Egypt, is latitude 30. Rome which is the same latitude, 40, as Philadelphia, Pa., has less rickets owing to sunshine and warm climate. The records of the Hamidie Children's Hospital, Constantinople, latitude 41, shows severe rickets.[12]

Rickets occurs but little in the Southern Hemisphere because there is little land south of latitude 35. Cape Town, Africa, is latitude 35. Patagonia extends from latitude 40 to 52. A few scattered islands, Tasmania and part of New Zealand, are in the same zone, but the climate there is unsurpassed.

Rickets occurs in the richest countries of the world. India, the poorest county has practically no rickets.

Rarely does rickets occur in the tropics and in certain countries where the sunshine is brilliant and the atmosphere is clear. The large Karro plateau of South Africa is free from rickets.

India and China have brilliant sunshine and little or no rickets. When the sun is brilliant in India the most deficient diet will not produce rickets.[13]

Rickets increases as the latitude is moved North or South from the tropics. Every negro family living in the tropics and having no rachitic children, on moving to latitude 35 or 40 will have rachitic children.

Maffei[1] pointed out that in the Alps there was no rickets at an elevation of 3,000 feet and over. Seldom is rickets seen between 2,000 and 3,000 feet. From 1,300 to 2,000 feet rickets is more prevalent.

Denver, Colo., has an elevation of 5,200 feet, latitude 40, the same as Philadelphia. Denver has 20 per cent more sunshine than Chicago, New York, Philadelphia, Richmond or New Orleans. The sun's radiation in Denver is 43 per cent greater than the above named cities at all seasons. In Denver, rickets plays no factor. There are no bowed legs, the cases are difficult to diagnose, and are mild and short in duration.[14]

In Chicago, latitude 41; Richmond, latitude 37½; Boston, latitude 42,—100 per cent of negro babies are rachitic. In Denver, 68 per cent of negro babies are rachitic,—mild cases.

In Boston, 95 per cent of all babies are rachitic. In Denver, 24 per cent of all babies

*Read before the Richmond Academy of Medicine, April 25, 1916.

are clinically rachitic, and 29 per cent by the X-ray survey.

The Eastern cities have much severer cases than are seen in Denver. There is no rickets in Tibet highlands, altitude 11,300 feet.

Japan has brilliant sunshine, winter and summer, with little rickets.

Denatured sunlight has little value as compared with direct light. Ordinary glass keeps out the ultra-violet and infra red rays which prevent and cure rickets.

The value of light has been noted for a long time, for Pliny remarked, "Sol est remediorum maximum."

Summer camps for city children on some of the plateaus of the Blue Ridge Mountains in the Shenandoah National Park would be worth the price of the park in human economy.

Man cannot exist in the temperate zone unless the diet is suited to the zone. More fats must be eaten by the young in early life to maintain proper growth. Animals kept in captivity develop rickets, and Howland remarked that when man domesticated animals he domesticated himself and rickets occurred in his children. Rickets is the scourge of zoological gardens today. Wild animals do not have rickets. The bones of monkeys that were kept in captivity in the temple of Thebes, latitude 26, 2,000 years ago show rickets.[2]

Dr. Grulee says that rickets is present in every negro child in Chicago. The dark pigmentation prevents proper radiation. In Africa it saved him from over-radiation. Many Northern animals turn white in the winter time, thus getting more radiation.

Von Housemann[3] noted that babies born in the late part of the year and dying in the spring show rickets, while those born in April or May and dying in the autumn have no rickets.

Spring babies have a better chance and the eugenic enthusiast will have to set the time.

Calcium and phosphates have been widely studied in connection with rickets. Two types of rickets are noted, one a low calcium and moderate phosphorus, the other a low phosphorus and very high calcium content. With the low calcium type tetany is apt to occur. Cod-liver oil cures tetany.

When the product of calcium in m.g.m. per 100 c.c. of serums and phosphorus in m.g.m. per 100 c.c. of serum is 30 or lower, rickets always occurs.

When the product is between 30 and 40 rickets is usually present.

When the product is above 40, healing is taking place or there has been no rickets.[4]

Calcium triphosphate composes 85 to 90 per cent of bone. There are many physico-chemical problems involved in the deposition of calcium, such as the pH. temperature and CO_2 tension not yet understood. The blood of females contains more calcium than males before breeding, and less after breeding.

The tide of calcium is lowest in the winter months; hence, rickets is most noted in January, February and March.

The problem of heating milk to make it safe is constantly discussed. The "milk stone" in the pasteurizing plants is formed from calcium salts which have been rendered insoluble by heat and thus lost as a bone builder. When milk is heated it is essential to feed vitamin D, which is most abundant in cod-liver oil and is present in butter.

In rickets, there is a higher secretion of trypsin from the pancreas. Children who continuously have 160 to 200 units of trypsin in one grain feces are suffering from florid rickets. Trypsin is a protein compound which can be reabsorbed. When given parenterally, it is a deadly poison.[5]

Rickets is a disease of early life. By the end of the second year, most of the gross defects of development of the permanent teeth have taken place although the first permanent molar does not appear until the sixth year.[3] Hence, the defect in development takes place four or five years before the tooth appears. In rickets the lower jaw hangs and develops poorly, resulting in the receding chin, the angle being obtuse.

Change of voice is caused by nasal obstruction, such as buckling of the septum by a high narrow palate, or by adenoids. If the obstruction is in the nasal cavity, the patient "speaks without his nose."

In such cases "m" become "b," "n" is changed to "d" "ng," to "g", "r" to "rr". If the obstruction is in the naso-pharynx, as in the case of adenoids, the voice loses its resonance. The result is "dead speech." Mal-development of the premaxilla due to delayed eruption of the permanent incisors plays a factor in septal intonations in early childhood.

This unnatural voice has become the voice of a large part of the Northeastern part

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of the United States. Rickets with its deformity had a share in the production of the "deformed voice" and others imitated it.

The teeth, the lens of the eye, the skin and the central nervous system are all ectodermic in origin. The eye is the site of serious changes, known as lamellar, zonular, or infantile cataract, frequently and erroneously called congenital cataract. The work of Treacher Collins has described this condition. ("The lens is developed from an invagination of the superficial epiblast so the nucleus corresponds to the epithehal surface. Unlike most epithelial surfaces, cells cannot be cast off, there being no blood vessels, and no mesoblastic tissue inflammation cannot occur. All changes are degenerative").

Xerophthalmia and keratomalica occur from lack of A body, but rickets is not necessarily present.

Xerophthalmia is more prevalent than was formerly supposed. The work of Block of Copenhagen in correcting xerophthalmia is well known.[7] Xerosis (drying of the ocular conjunctiva) is due to lack of Fat Soluble A.[8]

Dr. Grenfell reported that in Labrador "spring staggers," "spring catarrh," and night blindnesss was cured by cod-liver oil or by eating cod-livers. The blindness of the lenten feasts in Russia was found to be a vitamin deficiency.

In the Dooley Hospital, we have observed and reported[15] xerophthalmia, keratomalica and lamellar cataract. The cases were treated with cod-liver oil. The keratomalica was cured. The xerophthalmia was arrested and the sight restored. The lamellar cataract is practically blind.

The "salt eyes" is not due to excess of chlorine, as was formerly supposed, but to a lack of vitamins.

The belief prevails in England that rickets is responsible for a great part of the ear trouble there. The high narrow palate caused by rickets produced buckling of the nasal septum, responsible for so much ear trouble.

The slum shoulder and flat foot are results of rickets.

Flat foot in the infant is constantly seen in rickets. This is especially seen in the well-to-do. Genu valgum frequently accompanies flat foot. The flat foot waddle has been worth a fortune to certain moving picture actors. The flat foot is noticed when the infant begins to walk at twelve to eighteen months.

Rickets is dysgenic and the irregular or narrow pelvis makes more difficulty for the obstetrician and adds to the danger of childbirth.

Rickets with its many symptoms has met its match in cod-liver oil. Rickets will be stamped out when the information now known is more widely broadcasted. From latitude 35 to 60 in the Eastern States cod-liver oil should be used in every case, whether breast or bottle fed, beginning when the infant is three weeks old—except July and August. Cod-liver oil should be used during the first two winters of the child's life. When older, butter may replace cod-liver oil.

Fall babies need more care than spring babies. Two per cent cod-liver oil or 15 per cent butter-fat in the food, will prevent rickets. Lard, pork fat, does not cure rickets. Oleomargarine does not cure rickets. The vitamins of winter milk are much less than grass milk. Butter should be increased in the winter.

The chylomicron content of blood is increased on giving cod-liver oil. There is no marked increase on giving oleomargarine, but marked increase of chylomicron content on giving butter.[7]

There is evidence that the antiophthalmic factor of cod-liver oil is distinct from the antirachitic factor, for cod-liver oil, heated too long, will lose its power to cure xerophthalmia but not the power to cure rickets.[10]

Activated oils are now well established, but experiments show that excessive irradiation will cause inactivation.

Steam slowly destroys vitamin A. The Newfoundland law requires 30 minutes for treatment of cod-liver oil and one-half of the time is carried out with no especial damage.

Mineral acids destroy vitamin A.

Hypovitamins, rather than avitamins, are common causes of lack of appetite in young children. Late rickets is a frequent result. The relation of vitamin B to appetite is of great interest to us. Animal experiments have shown[16] that when the A, B and C bodies are removed from food, dogs refuse in time to eat. The A body does not restore appetite with anything like the effect noticed when B body is given. Meat, milk, oranges, tomatoes and concentrated extract of B body promptly restore appetite. Ox heart is rich in B body and the ox heart is a prized dish in England today. Liver contains A, B and C body in

abundance. One pound of ox liver contains as much vitamin as seven pounds of beef muscle (steak). Beef muscle is very deficient in A, B and C bodies. The glands are valuable storehouses of vitamins. Kidney is excellent, representing five pounds of beef muscle in vitamin. Both milk and oranges contain A, B and C vitamins.

Deficient A body produces reduced platelets, and hence reduced resistance. The writer believes that protective foods will prevent much pneumonia and infections, such as tuberculosis. Almost all cases of pneumonia under six years of age, brought to Dooley and St. Philip's Hospitals in the winter months, have been fed (prior to entering the hospitals) food that is lacking in protective vitamins.

In the recent epidemic of influenza (January, February and March, 1926), all pneumonia cases in Dooley Hospital under four years of age received cod-liver oil three times daily. All cases with pneumonia (ten years the oldest) received orange juice three times daily. There were thirteen cases. The results have been far superior to those obtained from any other treatment we have ever used. There were no deaths. The duration of the disease was short and there were no complications.

Case Reports

Child, four years of age, never took milk, and had complete anorexia. Weight 27 pounds. There had been no gain in weight in two years. Wassermann negative. Urine negative. Feces negative. Heart and lungs negative. Hemoglobin 47. Coagulation time 1½ minutes. Red blood corpuscles, 2,760,000; white 9,400.

Appetite was increased by B body (orange, tomato and milk). Drank one quart of milk daily and was given cod-liver oil and butter freely. No drugs. There was a gain of four pounds in three weeks. Hemoglobin became 70 in the same time. There were two cases similar to this one.

The remarkable work done by Reynolds and Macomber (1921) and Evans and Bishop (1922)[17] shows another vitamin far-reaching in its importance,—X vitamin E. In experimental work, they have proved this the vitamin of fertility. According to their work, animals are made to breed or stop breeding according to the manner of food. When X vitamin E is not given, there is no offspring. When X vitamin E is given, offspring results.

When sterility has been produced, they found that lettuce, meat, whole wheat, wheat germ, rolled oats, dried alfalfa, and large quantities of milk will relieve the condition of sterility. Wheat germ oil is especially effective, even in small doses, to cure sterility. Whole milk, cod-liver oil, orange juice and yeast will not act to cure sterility. The unknown fertility factor cannot be identified with vitamins A, B, C and D, but is essential for reproduction. Note the country versus the town woman with regard to fertility. The necessity for whole wheat or grain cereal is being recognized.

Prevent rickets and much tuberculosis of bone and lungs will be prevented. Tuberculosis starts in early life when rickets has reduced resistance to a minimum.

Finally, note the Southern migration that built up Los Angeles. The cause is climate, sunshine. The largest migration South in the history of the world has just taken place to Florida. Climate and sunshine started the migration. These migrations South from bleak winters are not new. Robert Louis Stevenson explains why the Northern barbarians invaded Rome. "Empty stomachs, sunless winters and aching hearts urged them on."

References.

1. Maffei: "Der Kretinismers in der Norischen Alpen Erlangen, 1844, p. 179.
2. Howland: Medicine, Vol. 2, 1923, p. 351.
3. Uber die Rachitis als Volks Krankheit, Berlin Klein. Wach., No. 9, 1906.
4. Howland: Medicine, Vol. 2, 1923, p. 371.
5. Lukacs: *American Journal of Diseases of Children.* Jan., 1926, Vol. 31, No. 2, p. 239.
6. J. Lavron Dick: Rickets. E. B. Treat & Co., 1922, p. 179.
7. Block, C. E.: Blindness and Other Diseases in Children Arising from Deficient Nutrition. (Lack of Fat Sol. A Factor). *American Journal of Diseases of Children*, Vol. 27, No. 2, p. 139.
8. Grinnan: Xerophthalmia in Infants. *Va. Med. Monthly*, March, 1926.
9. Shroeder Holt: Chylomicron Content of Blood, *American Journal of Diseases of Children*, Vol. 31, No. 2, p. 217.
10. Howland, J.: Medicine, Vol. 2, 1923, p. 357.
11. Turner, A. L.: Nose, Throat and Ear. William Wood & Co., New York, 1925, p. 26.
12. Dick, J. S.: Rickets. E. B. Treat & Co., New York, 1922, p. 21.
13. Dick, J. S.: Rickets. E. B. Treat & Co., p. 18.
14. Forbes, R. P., and Green, B.: Rickets in Colorado. *Archives of Pediatrics*, Vol. XLIII, No. 2, Feb., 1926, p. 131.
15. Grinnan, St. George T.: *Va. Medical Monthly*, March, 1926.
16. McCollum and Simonds: The Newer Knowledge of Nutrition. 3rd Edition, pg. 219.
17. Ibid. Pg. 289.

925 *West Grace Street.*

NOVASUROL AS A DIURETIC IN CASES OF EDEMA.*

By W. P. ARGY, B. S., M. D., Washington, D. C.

The internal use of calomel as a diuretic was suggested by Jendrassik[1] in 1886, and since that time there have been sporadic references to its use, in the literature, with occasional surprising results in urine elimination. Cushney[2] advised its use but in small doses, attributing its effect to its direct action upon the renal epithelium.

In 1917 Karl Zieler[3] introduced novasurol as a new mercurial in the treatment of syphilis. In 1920 Saxl and Heilig,[4] while treating cases of aortic disease complicated with cardiac decompensation, found that there was an enormous secretion of urine in those cases in which novasurol was used. Since that time there have been many reports in the literature of cases of edema treated with this drug, with marked beneficial results in most instances.

Novasurol is a complex non-ionizable salt containing 33.9 per cent mercury and is employed in a 10 per cent neutral sterile solution obtained in ampules containing 1.2 c.c. It is a double salt of sodium mercurio-chlor-phenoxylacetate combined with diethyl barbituric acid. It is fairly soluble and is used by either intramuscular or intravenous injection. In cases where there is a marked anasarca, the latter method is preferred.

The action of the drug is not definitely known. Nonnenbruch,[5] Brunn,[6] Saxl and Heilig,[7] Bohn,[8] and Keith and Whelan[9] have demonstrated that there is an increase in the secretion of chlorides after an injection of the drug. They conclude that its action is biochemical, and, furthermore, that this takes place in the tissues, tending toward the extraction of water and sodium chloride from their colloidal combination. Saxl and Heilig[7] have further shown that water and sodium chloride is quickly excreted after injection in cases of cardionephritis and that the diuretic effect depends but little upon the amount of sodium chloride and water in the blood. In other experiments they found that the administration of atropine and sodium chloride hindered the diuretic action of the drug. Cushney[2] states that atropine has little if any direct effect upon the secretion of urine, and he further states that atropine lowers the blood pressure as a result of its action in dilating the capillaries. Loeb[10] has demonstrated that a lowering of the blood pressure and dilatation of the capillaries increases the permeability of the capillaries, thus favoring the further transudation of fluids from the blood to the tissues, and thereby hindering the reverse flow of fluids and salt from the tissues to the blood. It seems, therefore, that these findings would force one to conclude that the diuresis produced by novasurol is due to a biochemical reaction taking place in the tissues. On the other hand, Muhling[11] and Bohn[8] conclude that a more or less intact tubular apparatus in the kidney is necessary for the increased elimination of fluids. This seems logical but does not necessitate the action of the drug upon the renal epithelium. It will be demonstrated later that prolonged use of the drug results in a gingivitis, stomatitis, or colitis, and this no doubt is due to the action of mercury in its ionizable form. For the present and for practical purposes, we may assume, because of the action of the ionizable forms of mercury on the kidney, that the action is principally biochemical, that is, mobilizing the water and salts in the tissues, thereby producing a plethora, but that this factor, probably combined with a direct action of the drug on the kidney, tends to favor elimination.

All observers believe novasurol to be nontoxic. Kollert,[12] upon examination of the kidneys of two patients post-mortem, concluded that there were no pathological evidences which could be attributed directly to the action of the drug. Marlinger [13] administered novasurol in a case of secondary syphilis, which resulted fatally, but he does not believe that the death could be attributed to the action of the drug.

Haggeney,[14] Saxl and Heilig,[4] Gilcrist,[15] Rowntree and Barrier,[16-17] and others have used novasurol in cases of edema of cardiac and renal origin with marked beneficial results. The effects were noted within twenty-four hours. There was marked improvement in the general condition of the patient with the production of an astounding diuresis. The average elimination was between 4,000 and 6,000 c.c. Brunn[6] reports an elimination of 8,500 c.c., and Hassencamp[18] 11,500 c.c. after the adminstration of the drug. Rowntree,[16] Barrier,[17] and Saxl[7] report a concomitant increase in the elimination of sodium chloride. Keith, Barrier, Whelan and Rowntree[17-9] report an increase in the elimination of nitrogen. Gilcrist[15] found that the increase in the vital capacity of the lung after the administration of novasurol in cases of edema of cardiac ori-

*Read before the Medical Society of the District of Columbia, at Washington, D. C., May 19, 1926.

gin, was about 35 per cent. In two of his cases in which there was no relief from the edema, the vital capacity was below 28 per cent. He therefore concluded that the drug would not be effective when the myocardial degeneration was of such an extent that the heart would not take advantage of the opportunity offered.

Hassencamp[18] advised against the use of the drug in cases of ascites due to portal cirrhosis, claiming that in his cases there was an increase in the icterus together with the onset of nausea and vomiting. On the other hand, Rowntree and Barrier[17-16] have used it in cases of Banti's disease, cirrhosis of the liver, polyserositis and polycythemia, with excellent results in nineteen of the twenty cases treated. They found that there was an increase in the jaundice together with nausea and vomiting in one of their cases, but this patient had had a previous attack of colitis. Their conclusions were that the results were unquestionably better than those observed in other similar cases with other methods of treatment. Fodor[19] also found it to be of benefit in cases of ascites due to cirrhosis and polyserositis, providing there was a good blood pressure.

Discussion of Cases Treated

Eleven cases comprise the bases of this study. The etiological factor in all cases was cardiac decompensation, while in nine cases there was an associated nephritis. Of the cardiac lesions, six were due to aortic disease, all of which could be attributed to syphilis; two had mitral diseases, one of which presented a history of a previous attack of acute rheumatic fever, and three had a myocarditis with an associated auricular fibrillation. In all except one case the nephritic lesion was a chronic parenchymatous nephritis. The ages of the patients varied between twenty-seven and seventy-four years. In all except one case the edema was marked, approaching or simulating a general anasarca. The edema had been in evidence for from two weeks to eight months. Two of the cases gave histories of three previous attacks of cardiac decompensation; one had had two previous attacks. There were nine males and two females. All of the patients had a low grade mentality and it was difficult to obtain absolute co-operation in the treatment. The nephritic cases were associated with a marked hypertension. The routine urine analysis varied, but in most instances there was an albuminuria with a varying cylindruria.

Therapeutic Measures

Diet: A simple diet was used. In all instances the patient was given water, 1,500 c.c. daily, for the first forty-eight hours, this being followed with milk, 1,500 c.c. daily, for the next seven days. Toast was added to the diet if so desired. Although the salt content of this diet was relatively high, it was, however, selected because of its simplicity and of the ease with which the fluid intake could be controlled.

Ammonium Chloride: In five of these cases ammonium chloride was given by mouth in doses of Gm. 3, daily, for a period of from six days to two weeks. Rowntree[17] found that the concomitant use of this drug enhanced the results, but he warns of the danger associated with its prolonged use, because of the tendency toward the production of an alkalosis.

Novasural: Novasurol was injected intramuscularly or intravenously in doses of 1.2 c.c. The interval between doses varied from three to six days.

Other Forms of Medication: In the cases of cardiac decompensation, tincture of digitalis was administered in dram doses, at four hour intervals, and continued until the pulse rate had fallen below 90 per minute, or until the patient had received his specific dose of the drug, as computed by McKenzie. Morphine sulphate was used in some cases where the restlessness was severe. In one of the cases where the effects of novasurol were not marked and where the patient had a marked thickening and dryness of the skin, thyroid extract was given in ¼ gr. doses three times a day, with an increase in the diuresis to enormous proportions and a subsidence of the edema.

Clinical Results

In all of the cases striking diuretic effects were obtained. In the eight cases in which the urinary output was determined before treatment was instituted, there was an elimination of about 560 c.c. of urine in twenty-four hours. In the five cases in which novasurol was administered alone, that is without ammonium chloride, the elmination of fluids averaged 2,410 c.c. for the twenty-four hours immediately following the administration of the drug. While this does not compare with the results obtained by other authorities, it must be remembered that these patients were suffering from advanced myocardial degeneration and in most instances the elimination was low, from extensive kidney damage of long standing.

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In those cases in which ammonium chloride was added to the routine procedure, the elimination of urine averaged 4,480 c.c. in twenty-four hours, and the highest amount eliminated was 5,790 c.c. in the twenty-four hours immediately following administration of the drug. We have found that after the use of ammonium chloride and caffeine citrate or theocin, in similar cases, the elimination did not exceed 2,000 c.c. in twenty-four hours, this being only 500 c.c. in excess of the fluid intake.

The results obtained in one of our cases are typical of the effects of the drug from a clinical standpoint.

The patient had a permanent auricular fibrillation with hypertension and chronic glomerular nephritis. She had had three previous attacks of cardiac decompensation, from which she recovered, in each instance within two months' time. She finally developed signs and symptoms of a deficient cardiac reserve power and was advised to remain in bed for a period of one month. During this time, however, she became progressively worse and in six weeks' time presented the picture of general anasarca with cyanosis and marked signs of myocardial degeneration. Theocin, caffeine citrate, and ammonium and calcium chloride produced no relief. She was finally placed upon a milk diet for a period of one week and was then given one c.c. of novasurol. A twenty-four hour estimation of the urinary output could not be obtained, but there was a noticeable increase in the amount excreted, and within forty-eight hours there was an absolute subsidence of the edema with marked improvement in the patient's general condition. Three weeks after the single injection of novasurol, the patient was permitted to go to her home, but two months later she again developed a general anasarca with ascites, from which no relief could be obtained, even after repeated injections of novasurol, although after each injection there was a decided increase in the urinary output.

All of our cases, with one exception, had a profound anasarca, from which it was thought there could be obtained no relief. Three of the patients died during the course of treatment. Two of these died within thirty-six hours after admission. Of the remaining, four did not respond to treatment in that there was no subsidence of the edema, but in all cases there was a marked increase in the urinary output. In one of these four, there was an increase in the urinary output from 580 c.c. before, to 1,900 c.c. after the injection of novasurol, and to 3,850 c.c. after the administration of thyroid extract. Three of the patients did not co-operate in the treatment. Two of the cases may be listed as cured. One had a beginning decompensation, his edema subsiding after a single injection of 0.5 c.c. of novasurol, and after a strict regimen of rest for one month, together with small doses of digitalis, he was able to return to his home; the second case was discharged from the hospital as cured one month after his third injection, but he immediately went to work, and as a result there was a recurrence of the edema which eventuated in death.

There were no evidences in any of these cases of toxicity which could be attributed to mercurial poisoning. In two of the cases there was a rise in the diastolic pressure. Both of these cases had had parenchymatous nephritis before treatment was instituted. The increased pressure might be attributed to an increase in the glomerular pathology. One patient had a severe colitis and proctitis following administration of the drug. Rowntree[17] and others report instances where a gingivitis had been produced.

Conclusions

We have found novasurol to be the most powerful diuretic in the armamentarium of the physician today. It is most effective in cases of cardiac decompensation, chronic nephritis and in ascites due to portal obstruction. Combined with ammonium chloride its effects are enhanced. Due to its mercurial content it should not be used in cases of colitis, gingivitis, stomatitis, or acute parenchymatous nephritis. Although it has been stated that there is no deleterious effect of the drug upon the kidney, in two of our cases there was a permanent increase in the blood pressure, which leads us to believe that its use in all of the nephritides should be with caution.

Because of the extensive mobilization of fluids and the resultant transudation into the blood stream, with the production of an hydraemic plethora, its use in cardio-nephritis should be with caution and in small doses, inasmuch as there is the danger of producing an acute cardiac dilatation or possibly rupture of an already damaged heart muscle.

Bibliography.

1. Jendrassik: *Deutsches Archiv. für Klinische Medizin;* xxxviii.

2. Cushney, A. R.: Pharmacology and Therapeutics; Lea and Febiger, 1918.
3. Zieler, Karl: Novasurol, Ein neues Quicksilber salz zur Syphilis Behandlung mit Bermerkungen uber die Grund satze der Quicksilber Behandlung; *Munchen Med. Wchnschr.;* 2; 1257; 1917.
4. Saxl, Paul; Heilig, Robert: Ueber die diuretische Wirkung von Novasurol und anderen Quicksilber injectionen; *Wien kiln, Wchnschr.;* 33; 943, 1920.
5. Nonnenbruch, W.: Uber die Wirkung des Novasurols Auf Blut und Diurese: *Munchen Med. Wchnschr.;* 2; 1447; 1921.
6. Brunn, Fritz: Zur Wirkung des Novasurols als Diuretiken; *Munchen Med. Wchnschr;* 2; 1554; 1921.
7. Saxl, Paul, and Heilig, Robert: Ueber die Novasurol diurese; *Wiener Archiv. Fuer Innere Med.;* 3; 141; 1922.
8. Bohn, Hans: Experimentelle Studien uber die Diuretische Wirkung des Novasurols; *Klin. Wchnschr.;* 2; 352; Feb. 19, 1923.
9. Keith, Barrier, and Whelan: The Effect of Novasurol on the Normal Composition of the Blood and Urine; *Am. J. Physiol.;* 72; 195; 1925.
10. Loeb, Leo: Edema; Medicine Monographs; Williams and Wilkins; 1923.
11. Muhling, Adolf: Studie uber die diuretische Wirkung sweise von Quicksilber Praparat, Novasurol; *Munchen Med. Wchnschr.;* 2; 1447; 1921.
12. Kollert, V.: Ueber die diuretischer Wirkung des Novasurols; *Therapie des Gegenwort;* 61; 22; 340; 1920.
13. Marlinger: Todesfall nach eine Novasurol injection bie Lues; *Med Klinik;* 18; 113; 1922.
14. Haggeney: Novasurol als Diuretikum; *Med. Klinik;* 18; 48; 1922.
15. Gilcrist, A. R.: Novasurol, a New Diuretic; *Lancet;* ii; xx; 1925.
16. Rowntree, S. G.; Barrier, C. W.: Diuretic Effects of Novasurol; Collected Papers of the Mayo Clinic; xvi; 1924; 221.
17. Rowntree, S. G., Keith, N. W., and Barrier, C. W.: Novasurol in the Treatment of Ascites; *J. A. M. A.;* 85; 16; 1187; Oct. 17, 1925.
18. Hassencamp, E.: *Zentralbl. f. Inn. Med.;* 6; 1922.
19. Fodor, E.: Ueber das Indikations gebeit des Novasurols als Diuretikum; *Med Klin.,* Berl.; xix; 684; 1923.

1718 *Rhode Island Avenue.*

THE CORRELATION OF X-RAY FINDINGS AND CLINICAL FINDINGS, ESPECIALLY IN DISEASES OF THE CHEST.*

By WILBUR M. PHELPS, M. D., Staunton, Va.
Roentgenologist, King's Daughters' Hospital.

The art of distinguishing one disease from another had its inception behind the veil of antiquity. The determination of the nature of disease was an empirical development of the centuries; but differential diagnosis is of comparatively modern origin. It is only within the past century that direct diagnosis and pathologic diagnosis were added to that which was based solely upon the symptoms shown during life, irrespective of the morbid changes producing them.

Twentieth century medicine demands complete scientific facts as a basis of diagnosis. We realize that diagnosis is difficult, even with the aid of all modern instrumentalities, and that the necropsy often reveals the fallibility of our most efficient efforts along that line. If the diagnostician fails, after bringing to the aid of his judgment all possible data available through present day methods of examination, then his conscience may be clear though his pride be lacerated.

One of the most valuable diagnostic agencies at the present time is the X-ray; but both its possibilities and its limitations must be thoroughly understood by the general diagnostician, and its correlation to other laboratory and physical findings established. He must realize that the roentgenogram is not a picture, but a shadow graph of the parts examined, and that the value of the examination will be proportional to the skill, judgment and interpretative ability of the roentgenologist. The latter must translate his observations into terms of normal or pathological conditions to enable the diagnostician to visualize them.

The roentgenological findings must be correlated with the other physical and clinical findings to make the diagnostic picture complete; and the evidence presented by each diagnostic procedure carefully considered before an opinion of value can be rendered. If a discrepancy develops in the findings, this should be worked out.

The clinician must bear in mind that no one diagnostic procedure is infallible, and the X-ray is not an exception to the fact. The roentgenogram records shadows of the parts examined, and these shadows will depend upon the relative density of the matter they traverse. The interpretation of the roentgenogram depends upon the variations in shadows produced by the normal or abnormal structures examined.

If a shadow is found in a part that should not give one, or if there is an absence of a shadow where one should exist, the roentgenologist knows he has found an abnormal or a pathological condition. His next step is to analyze the shadow in an effort to identify the nature of the pathology.

There are a great many conditions in which

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the X-ray findings are definite and positive, and many in which the roentgenogram is the only possible method of revealing the presence of a pathological condition; but there are also a great many conditions in which the roentgenologist needs and should have the co-operation and assistance of the clinician before formulating his conclusions. This is especially true of chest pathology. An outline of the following case will illustrate this statement:

A boy of eighteen years of age had symptoms of influenza—pulmonary type. Onset sudden, without chill, but with temperature ranging from 101 to 103; pulse 90 to 110. Complained of uncomfortable feeling in region of lower right chest; very slight cough; no expectoration. Physical examination of chest negative, except for scattered rales heard in upper portion of chest on both sides. There were no definite pathological breath sounds. Respiratory rate varied from 28 to 32. There was a leucocytosis of 19,000, with 94 per cent polys. The case had the appearance of pneumonia, but the absence of ausculatory signs caused doubt. A roentgenogram of the chest was made and showed a dense area, extending outward and downward from the root of the lower right lobe of the lung. Because of the location of the lung density, the roentgenologist would have hesitated in pronouncing the case pneumonia, as other pathological conditions could produce the same shadows. The clinician was not prepared to make an unqualified diagnosis of pneumonia, because of incomplete physical findings. But when the roentgenologist and the clinician co-operated in this case, the irregular manifestations were reconciled, and a positive diagnosis of lobar pneumonia was made, and justified by the course of the disease. After convalescence was established, another roentgenogram was made and showed that the shadow found in the first examination had completely disappeared.

The majority of chest examinations are made for the purpose of diagnosing or excluding pulmonary tuberculosis, and in these cases there should be close co-operation between the clinician and the roentgenologist, to avert an unjustified sentence of present tuberculosis, on the one hand; or, on the other, the risk of overlooking an active lesion. The roentgenogram alone cannot determine the clinical importance of the pathology found. As a rule in early tuberculosis, properly made films will reveal to the experienced roentgenologist more evidence of pathology than has been found on clinical examination. Undoubtedly, the X-ray furnishes the most valuable means of following the progress or recession of the disease. Fibrotic changes, clearing areas, cavitation, extension, calcification, all are capable of demonstration on the X-ray film.

The roentgenogram is also an aid in prognosis, as the evidence of obviously old and healed lesions is of favorable prognostic import, even in the presence of presumably active ones, as indicating that the patient has been able on a previous occasion to overcome an active infection.

The determination of the presence or absence of fluid in the pleural cavity is ordinarily easy by employing percussion, palpation and auscultation, and in this condition radiography is usually resorted to in order to confirm the physical findings. It must be remembered that no roentgen differentiation is possible between the different types of fluid collections, as pus, serosanguineous fluid, and the clear collections of fluid, all give the same X-ray density. However, the evidence of fluid is always recorded on the film and its presence or absence can be positively determined and localized.

We must not overlook the fact that clinical signs of fluid may be present without the existence of any effusion, nor that an effusion may be present without giving stethoscopic signs.

Barjon, speaking of the first condition, or pseudo-effusion, as he calls it, says:

"The patients in question have all the signs of pleurisy of the large cavity; dullness, fremitus, abnormal breathing, egophony and aphonic pectoriloquy, and yet there is no pleural effusion.

"This phenomenon may be present under many circumstances, and radioscopic examination has here a great value. It demonstrates, in fact, that in spite of these deceptive symptoms, the pleura is free of fluid, the hemithorax is perfectly clear from apex to base, the diaphragmatic dome stands out clearly, and, though the respiratory movements may be weak and lessened in extent, the diaphragm is not completely immobilized. It is certain, therefore, by the X-ray examination that there is no effusion.

"The negative findings ought to suggest a positive diagnosis, if we take into consideration all the indications furnished by the history, clinical examination, the development of the disease and radioscopic examination.

"Grancher described some years ago, under

the name of 'spleno-pneumonia' a clinical syndrome, which, under the appearance of pleurisy, is not accompanied by any effusion. It is a particular condition of the lung in which, consequently, thoracic symptoms always ought to predominate. It is produced in bronchitis, pulmonary congestions, pneumonias, and, finally, it is met with in the course of general infectious diseases, such as rheumatism and typhoid fever.

"Barjon drew attention sometime ago to two cases of sub-diaphragmatic affections, producing this complete syndrome without there being, however, any fluid in the pleura. One of these patients had an abscess of the liver, the other suppurated cyst of the same organ. Similar facts have been observed in certain cases of sub-phrenic abscess."

I remember seeing a case in the Boston City Hospital a number of years ago, that impressed me with the value of roentgenological examination in doubtful conditions having symptoms referable to the lower chest or diaphragmatic region. The patient presented what I thought to be rather indefinite, but suggestive symptoms of gall-stone. The hospital surgeon was quite convinced and decided to operate without having an X-ray examination made. A normal gall-bladder was found and no gall-stones. A roentgenographic examination, after operation, revealed a pleurisy with effusion at the base of the right lung; and a post-mortem confirmed the findings.

"In a total pleural effusion the only clinical signs may be confined to dullness with absence of fremitus. On account of the compression of the lungs, no abnormal breathing, egophony or aphonic pectoriloquy is heard. In such a case the most important radiographic sign, beside the total obscurity of the hemi-thorax, is the displacement of the heart and mediastinum by the fluid pressure."

The fluoroscope reveals one very interesting and important fact that cannot be determined by any other means of examination, and that is, in all forms of pleurisy there is absolute immobilization of the diaphragm on the affected side. This diaphragmatic paralysis develops before the effusion starts, and persists after its disappearance. It is a curious fact that the movements of the diaphragm are retained in the presence of even abundant pleural effusion, not associated with pleurisy. Such has been found true in cases of hydro-thorax accompanying Bright's disease.

The necessary limitation of time for presentation of papers today precludes my discussing the many other pathological chest conditions in which roentgenological examination is of first importance in the diagnostic procedure.

Let me emphasize at this time that the exact diagnosis of chest pathology is not a simple thing, and that both the clinician and the roentgenologist should have the benefit of all possible clinical, physical and laboratory data in formulating their opinions; and even then the post-mortem findings may disagree with the ante-mortem conception of the pathology present.

We have not yet reached a hundred per cent efficiency in ante-mortem determination of chest pathology. This fact is probably not remarkable when we consider that less than a century and a half ago not even the function of the lungs was understood. Three generations removed from us our predecessors in medicine were in darkness regarding the physiology of the lungs, and so, of course, could not comprehend pulmonary pathology.

Let me quote a few paragraphs from a textbook I possess, written by W. Cheselden, Surgeon to His Majesty's Royal Hospital at Chelsea, Fellow of the Royal Society, and Member of the Royal Academy of Surgeons at Paris, and published in 1778. In his Chapter on the Pleura, Lungs, etc., he states:

"The lungs are composed of two lobes, one seated on each side of the mediastinum. They are each composed of very small cells. The figure of these cells is irregular, yet they are fitted to each other so as to have common sides. Into these cells the blood vessels discharge a large quantity of lymph, which at once keeps them from being dried by the air and makes a large and necessary discharge from the blood.

"The known uses of the airs entering the lungs are to be instrumental in speech and to convey effluvia into the nose; but the great use of it by which life is preserved I think we do not understand. By some the force of the air is thought to separate the globules of the blood that have cohered in the slow circulation through the veins. Yet it remains to be proved that these separations are made by the force of the air. Besides, if pressure of the air in the cells of the lungs is the only use of it, I do not see but enough of that may be had while a man is hanging, if the muscles of the throat do but act upon the air which was left in the thorax when the rope was first fixed, and yet death is brought about by hanging no other way than by interrupting of the

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breath as I have found by certain experiments."

Again, he says:

"Others have thought that the air enters the blood vessels from the cells in the lungs and mixes with the blood; but this opinion, however, probably wants sufficient experiments to prove it. Air being found in the blood, as it certainly is, is no proof of its entering this way because it may enter with the chyle."

Again, and very interesting as an evidence of ignorance of pathology, he says:

"Adhesions of the lungs to the pleura are in men so common that I know not how to call it a disease, they being found so more or less in most adult persons and without any inconvenience, if the lungs are not rotten."

And now, leaving the conceptions of Dr. Cheselden's time, we must not forget that all of the facts we now possess regarding chest pathology and its diagnosis have been developed during the past hundred years, and advanced as this knowledge is since the day of Cheselden, there is much to be desired. We are all striving to attain the maximum in diagnostic efficiency, and the only way in which we may succeed is to obtain and correlate complete data in each case. This data will be inexcusably incomplete unless it includes roentgenological findings, especially in diseases of the chest.

DISCUSSION.

DR. NOLAND M. CANTER, *Harrisonburg*:—The precise value of the use of the X-ray as a diagnostic procedure in pulmonary lesions is a matter of differing opinions.

The paper just read has presented the subject in an admirable manner, and I feel gives the proper appreciation of the use of the X-ray in this important field.

Some regard the X-ray as a means of confirming the presence of disease and revealing its extent and the presence of complications. And this is certainly true. Others, however, look upon this method as an invaluable means of disclosing small peripheral and large central lesions which have in some cases reached the stage of consolidation, and even cavitation sometimes, without the corresponding clinical signs having been detected.

I am confident that the X-ray discloses lesions otherwise not found at an early date. At the Walter Reed Hospital during the influenza epidemic in 1918 routine bedside X-ray examinations were made of all patients having any respiratory symptoms. Many cases showed involvement in the region of the hilus which proved to be acute inflammatory infiltration, which Selby called "hemorrhagic pneumonitis." These lesions were often not found clinically.

A case of a student nurse, who came for annual physical examination, presented an unusual lesion. There was a definite area of consolidation in the lower, outer portion of the right upper lobe, about the size of a five cent piece. Elsewhere the lungs were remarkably clear. Although the lesion was an atypical one, we called the attention of the clinician to it, classifying it as a tuberculous lesion. However, no attention was paid to this. Three months later the lesion had enlarged peripherally, but no symptoms of involvement had been noted clinically and the patient seemed quite well. A few weeks later she began to have an elevation of temperature, and further examination revealed softening in the center of the area, and a dissemination of the process. This young lady had developed a wide spread tuberculosis.

Another patient who recently came to my attention was a young woman who began to complain of being easily fatigued. She had a slight elevation of temperature. No clinical evidence of lung involvement was obtained. The X-ray revealed a nebulous area of density in the left apex, which was thought to be due to tuberculous infiltration. Elsewhere the lungs were clear. The patient was treated for tuberculosis and showed improvement, and it was some months after discovery of the lesion with the X-ray that any signs could be made out. So this young woman had the benefit of early treatment, because the X-ray showed definite pathology.

I do not think we can over-estimate the value of the X-ray in the diagnosis of lung conditions when this method is in the hands of a careful, well-trained, and not too enthusiastic roentgenologist. A colleague once talking with a clinician regarding a case under discussion, used the following expression: "Don't read pathology into the films." By this he meant to warn him against the error of interpreting all shadows as conclusive evidence of lung pathology.

One may safely conclude that the X-ray forms a valuable link in the chain of evidence. The correlation of the clinical findings and those of the X-ray is the best method of determining the presence and the extent of pulmonary lesions.

I wish to congratulate Dr. Phelps on his excellent paper.

DR. H. GRANT PRESTON, *Harrisonburg*:—Dr. Phelps' paper is very interesting to me. Recently, I had a very instructive series of cases along this line. Most of these cases complained of cough, expectoration of large amounts of purulent material, and had all been diagnosed as tuberculosis by one physician or another. Most of them had been treated in some sanitorium, where frequently no definite diagnosis of tuberculosis could be made.

All of these cases showed signs of frank sinus infection, which was purulent in type, and all had at least one antrum of Highmore involved. The pharynx and larynx were chronically inflamed and the throat irritable. In most cases the tonsils had been removed, with the promise that this would relieve the "catarrh."

The clinical chest picture was that of a chronic bronchitis, with course and fine rales throughout. Some showed asthmatic, emphysematous, and even bronchiectatic changes.

The X-ray examination was essential to make a diagnosis, for, while the picture was characteristic of chronic bronchitis, there was much soft infiltration, glandular involvement, and very little or no parenchymatous infiltration. On the whole, if the chest picture had been due entirely to tuberculosis, the patient would have been in a moribund condition.

Of course it is possible to have a non-specific pulmonary infection superimposed upon a tuberculous one, in which the X-ray helps but is not conclusive. However, in most of my series, repeated sputum examinations and tuberculin tests proved negative.

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X-ray, clinical picture, and physical findings separately are not sufficient to make a diagnosis in these cases, but with correlation of their methods, one is able to place them in their proper category, and response to treatment of the sinus condition is marked.

TREATMENT OF INCIPIENT CATARACT.*

By HUNTER H. McGUIRE, M. D., Winchester, Va.

This communication is concerned with the management of those cases of beginning lenticular opacity in the adult which have not reached the stage of what is commonly termed mature cataract and which are characterized either by the presence of striae in the cortical layers of the lens or by a distant clouding of the central nucleus.

Recent studies of the crystalline lens by means of ocular microscopy and the slit-lamp of Gullstrand have given conclusive evidence that many cases of lenticular opacity never reach the stage when surgical intervention becomes necessary, and in the routine use of this instrument one is amazed to find the great number of lenses which show well-defined opacities in one form or the other, which either never develop into true cataract or completely disappear under appropriate treatment. In view of these findings, the impression is gaining ground that cataract is frequently a toxic process and is not solely a senile degenerative change. Cataract must, therefore, be regarded as a diseased condition of the lens secondary to some local manifestation within the eye, or to constitutional disturbances. Concrete examples of this fact may be cited in the development of lens changes from uveal tract inflammatory processes and glaucoma and the well known tendency to cataractous development in diabetics.

In a recent paper on this subject, Peter makes this significant statement: "To the thoughtful surgeon, there must be an inquiry as to the reason for spontaneous arrest of a cataractous process, which under ordinary circumstances, or at least in many instances, goes on to maturity. Is it by mere chance that lenticular opacities fail to increase, or is there some local or general condition which ceases to be operative so that coincidentally the cataract comes to a standstill? If the latter view is accepted, it is but a logical step to consider what may be done to assist nature in ridding the body of that which stands in direct or indirect relation to the onset and development of the cataract." Long before the days of ocular microscopy, many keen observers, notably, C. F. Clark and Samuel Risley, pointed out that cataract in the adult was more or less closely related to uveal tract disease, and emphasized the importance of correcting the underlying inflammatory condition in the attempt to arrest the sclerosing process in the lens. Clark, for example, in a study of several thousand cases, found comparatively few cases of senile cataract which went on to maturity, and in those which did reach maturity he was confident that there was coincidentally an increase in the uveal pathology. Risley, likewise, in a study of eighty cases, found 75 per cent suffering from refraction errors; vitreous opacities were present in twenty-two cases; choroiditis in fifty-eight, and inflammatory conditions of the conjunctiva and lachrymal sac in forty-five cases. More recent studies of incipient cataract have been presented in papers by Edward Jackson and Allen Greenwood. Jackson's notable paper before the American Ophthalmological Society in 1924, "Senile Cataract under Hygienic Care," contained carefully compiled notes of 539 consecutive cases seen in private practice. In a general summary of these cases it was evident that in 14.5 per cent of the patients under observation, an average of almost five years, vision in the better eye remained standard or above. That in twenty eyes there was a net increase of vision of more than 0.1 in 9 per cent, and that in one hundred eyes in which vision did diminish such diminution was less than 0.1 per year in 80. The average yearly diminution was really but little over 1/20. His conclusions, and the mature judgment of that eminent teacher should carry great weight, are as follows: "For a patient of the average age —of this series 65.35 years—presenting commencing senile cataract, the probability is that under proper hygienic care it will be twenty years before the cataract becomes mature, and fifteen years before he loses the power of reading ordinary print. The average expectancy of life at sixty-five is ten years. This agrees with the relatively small number of people who become blind from cataract."

When we seriously consider these facts, coming from a man like Jackson, and, further, corroborated by studies of the lens with the slit-lamp, it seems to me that our prognosis in cases of so-called incipient cataract should

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be extremely guarded. The very term cataract, utterly devoid of scientific meaning, carries terror to the heart of the layman. It means for him impending blindness with all the horrors such a condition presents, and it immediately produces a state of mental depression which, in many instances, is never overcome. The brutal custom, so long in vogue in ophthalmic practice, of bluntly informing the patient that he has cataract and must wait for it to ripen and become totally blind before recovering his vision, is, happily, being wiped out and has no place in scientific opththalmology. I do not mean to convey the impression that if I discover opacities in the lens, I fail to explain to the patient the cause of his diminished visual acuity. This must be done in all instances, but it can be done in a perfectly clear and scientific way without mentioning the word cataract and the confidence of the patient will be retained and he will be made happy.

It goes without saying that the exact condition of affairs should be stated to the family physician and his co-operation obtained in the management of the case, and, further, I have found it advisable to inform some member of the patient's family of the nature of the condition, with instructions not to refer to cataract when family discussions are in progress. If you omit these precautions, the next learned gentleman who by chance looks into the eye might inadvertently exclaim, "Oh! you have cataract, and I am greatly surprised that your other doctor failed to find it," and the original examiner is immediately brought into disrepute.

The treatment of so-called incipient cataract will be influenced to a large extent by the general physical state of the patient, by the local conditions within the eye, and the character and location of the lenticular opacities. A thorough search should always be made for focal infections and as far as possible these should be removed. The amount of blood sugar should be estimated and, if in excess, efforts should be made to reduce it. In fact, a thorough physical examination should never be omitted.

The examination of the eye should be made with painstaking care. Subjective tests for visual acuity should always be supplemented by visual field studies, unless the lens opacity is sufficiently developed to interfere with an accurate recording of the fields. The ophthalmoscopic examination should never be undertaken without a widely dilated pupil. This is essential if one is to study the periphery of the lens and to make a searching investigation of the eyeground. It must be constantly borne in mind that macular lesions, extensive chorioretinal changes, and sclerotic changes in the vascular system of the retina will frequently account for a poor result in the treatment of incipient cataract and, after the extraction, of mature cataract.

For the examination of the lens itself, in my opinion, there is no method comparable to the microscope and slit-lamp illumination. The wealth of information gained from such a study is of immense practical value in the treatment of any type of lens opacity. Under high power the ability to observe the capsule of the lens, to note its thickness, its wrinkling, and its attachments to the underlying substance means much in rendering a favorable or unfavorable prognosis. The ease with which a thin beam of light can be directed throughout the lens substance giving a perfect optical section, bringing into view the nuclear surfaces with a clear definition of the segments of the lens, affords a method of investigation which cannot be obtained with the ophthalmoscope alone. By such a method one is able to differentiate the various types of opacity, whether they be vacuoles, water fissues, or dot-like formations in the cortex or central nucleus, and to accurately locate the depth and extent of such opacities.

The first step of importance, as far as the local treatment of beginning cataract is concerned, is the accurate correction of any error of refraction which may be present. This has a two-fold effect. First, it will, in many cases, materially improve vision, and, second, it promotes rest of the ocular structure in correcting eyestrain, a potent factor, as Risley pointed out years ago, in the production of uveal disturbance. Inasmuch as during the sclerosing process the curvature of the lens is materially altered from time to time, it is usually necessary to make more frequent changes in the correcting glasses than under ordinary conditions, and the patient must be informed of this fact.

General hygienic measures in the care of the eyes should be adopted and the patient given instructions as to the use of the eyes, and under what conditions. While no fixed rules can be laid down for each individual

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case, the ability to use the eyes for short or long periods will depend upon the location and extent of the lenticular opacity. If there has been a rapid failure of vision and the clearest part of the lens is decidedly hazy, interruption of near work, for a time at least, should be recommended. As a general rule, however, I should say that as long as a patient, under good light conditions, can read ordinary print without undue effort, it is far better to allow use of the eyes for certain periods, and the individual who depends largely upon reading and close work for his or her happiness in life will be saved the inevitable mental depression which results when such habits are restricted. It should be constantly borne in mind that, in most of these cases, we are dealing with old people whose habits are fixed, who to a greater or less extent are the victims of other physical infirmities, and whose contentment in their declining years will depend largely upon the advice and attitude of their medical advisor. Too much restriction in their daily routine and too much medical advice, even though based upon scientific reasoning, sometimes thwart our very best efforts in helping them over the rough pathways at the end of their journey.

Of the other measures advised from time to time for the arrest of cataract, many have been irrational and without scientific foundation. We are all perfectly familiar with the many so-called "cataract cures" which have been exploited for many years by an army of quacks, whose victims we daily come in contact with and whose methods are simply mentioned to be condemned. The definite object in view in the treatment of incipient cataract is an improved nutrition of the ocular tissues and an absorptive action upon the lenticular opacities. Nothwithstanding a few reports to the contrary, the concensus of opinion seems to prove, in the light of our present knowledge, that no remedy which has been advocated will absorb opaque striae in the lens. On the other hand, it is believed that a diffiuse lenticular haze may be removed to a remarkable extent by the local use of certain agents. The method which produces such a result consists in creating a vascular reaction in the conjunctiva and surrounding tissues. This is usually referred to as a lymphagogue action, and has for its object an improved nutrition of the ocular tissues and the promotion of osmosis and endosmosis. For the purposes of inducing such a reaction, the local use of sodium and potassium iodide, dionin and subconjunctival injections of cyanide of mercury have been extensively employed in recent years.

Lt. Col. Smith, of the British Army, whose cataract work in India is so well known, was the first to suggest subconjunctival injections of cyanide of mercury, and in a large clinical experience he was definitely impressed with the value of this agent in the removal of certain types of lenticular opacity. The two Greens of San Francisco have reported a number of successful cases by the employment of this method in either the arrest of the sclerosing process or a definite absorption of some opacities. Luther Peter, of Philadelphia, has likewise been an advocate of the Smith procedure, and uses it as a routine method in selected cases. He is of the opinion that the immediate improvement in vision, which follows an injection of cyanide of mercury or any other drug which causes an equal amount of hyperemia and oedema, is probably due to a general improvement in the nutrition of the eye tissues, in which the avascular structures of the eye, the vitreous, the lens, and the cornea are conspicuously cleared. The entire uveal tract is benefited, and these structures, so directly dependent upon the circulation of the ciliary body, iris, and choroid for their vitality, are secondarily benefited. I have personally seen some of Peter's cases and have been very much impressed with the favorable results he has secured. While I have had no personal experiences in the use of cyanide, I believe, with Peter, that its beneficial action is due to the intense hyperemia and oedema it creates and not to any specific action of the drug. I have hesitated to use it, not from any fear of harmful effects, but because it is difficult to induce the class of patients we see in private practice to submit to the rather violent inflammatory reaction in the eye which it provokes.

With regard to the local use of sodium and potassium iodide, occasional reports have appeared in the literature which would seem to indicate that in some instances good results may have been obtained. Personally, I have had no experience with this treatment, and am, therefore, not in a position to express an opinion with regard to its efficiency.

Probably the most generally used drug in the local treatment of incipient cataract, during the last decade, has been dionin in varying strengths. Solutions of this drug cause

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an intense hyperemia of the conjunctiva with more or less oedema and have the property of promoting absorption of inflammatory exudates to a remarkable degree. In an experience of ten years with the use of this remedy I am convinced of its value in arresting the progress of certain types of beginning cataract, and believe that it has a definite place in the treatment of lens opacities. One should not be too dogmatic in his statements regarding the action of any drug, and dionin, like any other remedy, has certain limitations. If we carefully study our cataractous lenses with the slit-lamp, I believe that we can, with a great degree of accuracy, determine in what special type of opacity we may expect to obtain results from dionin. I do not believe that this information can be obtained to the same extent by other methods of examination. It may be stated that, like cyanide of mercury injections, dionin has no appreciable effect in absorbing opaque striae or the so-called "spokes" in the lens, which are usually seen in the cortex just beneath the capsule and more often in the periphery than in the central areas, but it has a definite action in absorbing, to a remarkable extent, the diffuse lenticular haze between the striae. The appearance that one gets may be likened to a tree, stripped of its leaves, but with its branches intact. Visibility between the branches is only possible when the foliage has been removed. In like manner, visibility between the opaque striae in the lens is only accomplished when the haze between them is cleared away. The action of either dionin or cyanide of mercury is, therefore, limited to the absorption of what is clearly seen with the slit-lamp and microscope as minute punctate opacities scattered throughout the cortical areas and occasionally in the central nucleus. It is these opacities which produce in the lens the general haze which is apparent with the ophthalmoscope. To be effective, dionin must be used in solutions of certain strength and by interrupted instillations. If used continuously over long periods, it gradually fails to cause any vascular reaction in the ocular tissues and thus defeats the object for which it is employed. Unless it produces a definite reaction in the eye, it can have no appreciable effect upon opacities in the lens. My usual method is to produce a rather sharp reaction in the eye by using a comparatively strong solution for the first treatment, and, after the reaction has subsided, to continue the instillations with weaker solutions at intervals of every three or four days over periods of six months or more. The reaction never does harm, but patients should always be warned that some eyes will react more sharply than others and that the temporary oedema and redness produced will quickly subside. When such explanations are made, they rarely ever become alarmed over the rather unprepossessing appearance of the eye.

Conclusions

1. Incipient lens opacities are by no means infrequent and, if studied carefully, will frequently be found to be dependent upon and associated with other pathological conditions of the eye.

2. To regard beginning cataract as a hopeless condition and one which must be inevitably cured by operation is both unscientific and not based upon facts.

3. The correction of refraction errors with hygienic care of the eyes, and the elimination of local pathology, particularly in the uveal tract, will do much to retard the sclerosing process in the lens.

4. The elimination of the term "cataract" from medical literature because it is devoid of scientific meaning and is based upon erroneous conclusions, would be most desirable. The avoidance of the term in our consultation rooms would, likewise, do much to quiet the fears of nervous patients.

5. The use of certain agents locally, which cause a definite reaction in the ocular tissues, thereby improving nutrition of the lens and correcting underlying ocular pathology, do much to retard the sclerosing process, and in many instances definitely absorb certain types of opacity.

FRACTURE OF THE SKULL AND UNILATERAL OPTIC ATROPHY.

By V. K. HART, M. D., Statesville, N. C.
From Department of Head Specialties, Davis Hospital.

The writer at one time or another has had occasion to see a number of patients with a fracture of the skull. However, he never before has seen one with unilateral optic atrophy. Moreover, this is the only residual involvement. Therefore, the case is deemed interesting enough to report. The anatomical features are at least worthy of consideration.

Briefly the history is abstracted as follows:

H. P. I.—The patient, a male, eight years

of age, was run over by a car and brought into the hospital unconscious.

P. M. H.—Nothing of value.

F. H.—Negative.

Physical Examination: The patient, as before stated, was unconscious. There was slight prominence of the right eye and the right pupil was moderately dilated and practically fixed. There was some bleeding from the right ear due to a recently ruptured drum. Other than these findings, a careful and painstaking examination elicited no other positive findings.

Laboratory: A spinal puncture was done at once. The spinal fluid contained a small amount of blood which was probably not from extraneous sources, but in the fluid itself.

Clinical Course: The patient regained consciousness in about six hours. He began taking fluids, although at first he had several attacks of nausea and vomiting. On the following day, however, he began to steadily improve. No signs or symptoms of increasing intracranial pressure supervened. Several spinal punctures were done during the first week of his hospitalization both for therapeutic and diagnostic reasons.

A stereoscopic X-ray of the skull showed a fracture extending superiorly and horizontally through both of the lesser wings of the sphenoid. The line of fracture was more anterior on the left and closer to the optic canal on the right. The other bones of the skull showed no involvement at all. Nevertheless, the patient left the hospital in six days.

The only altermath of the accident was entirely limited to the right eye. Subjectively, there was complete loss of vision (amaurosis). Objectively, the pupil was moderately dilated and did not react to light. There was slight exophthalmos and limitation of all ocular excursions to small degree in all the principal meridans with exception of the field of the right external rectus where a well defined paresis existed. The media was clear and the eye grounds showed no pathology or unusual findings. The vision of the left eye was 20/25 and the findings entirely normal in every respect.

A week later the patient was again seen. There was then slight exophthalmos and some limitation of motion in the field of the right external rectus. No note was made then of any unusual eye ground findings. The vision was 20/20 in the left eye. Complete blindness had persisted in the right.

One month later the patient was again seen. There was a very small residual paresis of the right external rectus. A little exophthalmos persisted. The fundus, however, showed a classical atrophy of the nerve which was very pale, and the calibre of the central vessels much diminished. In the last few weeks the prominence of the eye has gradually lessened and the function of the external rectus has returned almost to normal.

Discussion: It is interesting to speculate as to the exact pathology involving only the right nerve, and necessarily, of course, anterior to the optic chiasm. In the writer's opinion such involvement most probably came from a subdural hemorrhage on the right side anteriorily, with seeping into the space between the pia and dura as they are prolonged along the nerve.

The anatomical relationships are not difficult to visualize. Investing the optic nerve as it leaves the optic chiasm are the meninges which make a sheath for the nerve. The pia fits the nerve rather tightly but the dura and underlying arachnoid only loosely, comparatively speaking. These (dura, arachnoid and pia) blend with the sclera when the nerve reaches the eyeball. The nerve, to reach the globe, passes then through the optic foramen, —formed by the two roots of the lesser wing and the body of the sphenoid.

Blood, then, extravasating into the subdural space would exert considerable pressure on the retrobulbar portion of the nerve after clot formation because, primarily, of a resisting sheath, and, secondarily, because of an unyielding optic foramen. A subdural collection of blood in this area could also easily involve the sixth nerve in similar manner as it leaves the subdural space to pass through the sphenoidal fissure with the 3rd, 4th, ophthalmic division of the 5th, and the ophthalmic veins. Why the sixth nerve was involved almost to exclusion of the third and fourth nerves (there was perhaps slight involvement of the other eye muscles immediately after the accident, but such involvement was slight and transitory) is more difficult to explain.

The sixth nerve, before reaching the sphenoidal fissure, lies between the 3rd and 4th nerves.[1] Reaching the sphenoidal fissure, it turns laterally beneath the ophthalmic division of the 5th to innervate the external rectus muscle.[2] It is, of course, closely related to the oculomotor and trochlear nerves. It is possible, however, to have a small subdural hemor-

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rhage involving the abducens to the exclusion of the other nerves.

The exophthalmos in such cases, in the writer's opinion, may be explained in any one of three ways or a combination of them: 1. Trauma to the dura, inflammatory reaction, infiltration and consequent pressure on the ophthalmic veins with passive congestion. 2. Hemorrhage, clot formation, and pressure on the veins and consequent obstruction to the return flow of blood. 3. A small intra-orbital hemorrhage.

One might ask, "Why does not an intra-orbital hemorrhage account for all the symptoms?" In the first place, because blood was found in the spinal fluid, which points to intracranial patholgy. Secondly, such an extravasation of blood would hardly exert enough pressure in the optic nerve to cause a complete atrophy. Thirdly, there was X-ray evidence of fracture.

New bone formation about the optic foramen, particularly in view of the location of the fracture, is a possibility, with resultant pressure on the optic nerve. However, the loss of vision immediately after the injury in contradistinction to a gradual loss, argues against such a process.

BIBLIOGRAPHY.

1. Pierson, Geo. A.: Human Anatomy, Vol. 2, Phila. and London, Lippincott, 1919, pp. 1223-1230.
2. Spalteholz, Werner: Hand Atlas of Human Anatomy, Vol. 3, Phila. and London, Lippincott, 1923, p. 712, July 21, 1926.

THE HYPOPLASTIC TENDENCY IN GYNECOLOGY.*

By ROBERT YOUNG SULLIVAN, M. D., F. A. C. S.,
Washington, D. C.
From the Department of Gynecology, Georgetown University.

This subject is of great interest, at least in a scholastic way, to those who are actively engaged in the practice of gynecology, since it presents a series of defects which appear in several important manifestations. Some of these are curiosities, occurring as anatomical defects which are beyond improvement, others as functional defects, and others appear as developmental defects, where growth only has been arrested. In these latter instances, treatment may be rewarded with considerable improvement.

The conditions in which hypoplasia are evident may be either general or local, as recognized by the usual evidences or so-called stigmata. Considerable investigation and discussion has been carried on in the hope of determining whether general hypoplasia is a reflection of local glandular defect, or whether the local defects are not incident to the general tendency to poor development. Without doubt, the latter view is the more reasonable, the glandular upset being incident to and really contributory to a marked degree, except where total absence of an endocrine gland is the case, which is without the scope of this paper.

The etiologic factors leading toward lack of development seem to be largely systemic: hence, we have hereditary and environmental influences causing arrest of development at the time of puberty, as shown conclusively in histories of those whose ancestors show mental defect, alcoholism, syphilis, race degeneration from incest and consanguinity. Also should be noted the effect of prematurity at birth and in illness in early youth, as in instances of rickets, tuberculosis, chlorosis, the acute exanthemata occurring in childhood, especially when these illnesses occur in severe form, and particularly at the developmental period, adolescence. The damaging permanent effects of severe illness at this period of life by mumps, measles, scarlet fever and diphtheria are well known. Lately, the belief has existed that the acute respiratory infection, grippe, and tonsilitis produce telling effect by also arresting the development of the genitalia chiefly by causing thickening of the tunica albuginea of the ovary, thereby definitely limiting the function of that organ both as an organ of procreation and also as one having an internal secretion.

The hypoplastic tendency is shown principally in two types of individuals, as described by Graves[1]—"The old maid type and the masculine type." They are quite different but rather easily recognized chiefly by the stigmata of infantilism. The first type is characterized by the thin, unattractive form, with flat chest, long neck, possibly bent spine, poor muscular development, poor breast development, and small genitalia, often with congenital descent of the uterus and general enteroptosis. With these there are many instances of small hearts with thin walled blood vessels, the typical evidences, for the most part, of general hypoplasia directly due to the congenital, environmental and hygienic faults enumerated above. The masculine type, in contradistinction, presents quite a different picture, showing a well developed and nourished individual with tendency possibly to obesity, who

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shows no general hypoplastic fault, and yet who shows definite local stigmata of infantilism, as small, rudimentary external genitals, with infantile uterus and undeveloped ovaries. Both types have excessively sensitive nervous systems, and both show low blood pressure and basal metabolic rate. The local changes characteristic of hypoplasia may be, and usually are, present in both types, and upon the extent of these anatomical defects a great deal depends, since they really determine the end-result so far as treatment is concerned.

All anatomical developmental defects relative to the uterus and tubes relate to failure of perfect union of the ducts of Mueller. It may be said, also, that there may be absence of the internal organs of generation, but these conditions are curiosities and have no place in this discussion. The local stigmata, which are characteristic, are small labia, small vagina, and either the dwarf uterus or fetal uterus. It is true, however, that absence of the ovary produces marked lack of development, as shown by the effect of castration in adolescence. The dwarf uterus is one in which the cervix bears the same relation to the fundus as in the mature uterus of the child-bearing organs, but the entire organ is arrested in development, retaining the puerile size. The fetal uterus is, however, one in which the normal relation of the fundus to cervix is reversed, the cervix being as three to one. In both types the musculature is poor and the utricular glands are absent, making defective musculature and mucosa, hence, presenting one of the chief influences of hypoplasia, sterility, since neither of these uteri can become impregnated.

The tube of the hypoplastic individual is tortuous, and rudimentary in size and musculature. Since its mucosa is of poor cellular development a second influence is clearly shown, as it is well known that undeveloped uteri and tubes easily succumb to infection. The ovary of infantilism presents characteristic evidences. It is small, and the tunica albuginea is thick and tough, making it extremely difficult for ova to be extruded; hence, the increased tendency to sterility from ovarian cause. Section of the ovaries shows thickening of this covering which, also, no doubt, causes such internal pressure within the ovary that few follicles mature and the internal secretion of the ovary is thereby materially lessened; section of these ovaries reveals the fact that most of the follicles are atretic.

Some allied conditions not definitely stigmata of infantilism are frequently seen in gynecology. These are some of the displacements of the uterus, but chiefly the uterus in its retrocessed position, either in anteflexion or retroflexion. Without doubt, these conditions are arrests of development rather than actual defective organs. There is not the change in the endometrium or musculature; hence, there is defective function only, manifested chiefly in irregularities of menses, scanty flow, dysmenorrhea, sterility and abortion, if pregnancy occurs. The occurrence of enteroptosis and nephroptosis, also gastric descent, are part and parcel of the tendency which in the genital tract also gives rise to relatively the few cases of congenital prolapse and cystocele.

The clinical course of those individuals suffering from either general or local hypoplasia is rather characteristic, being similar to some degree whether the major portion is constitutional or local. The evidences are usually fatigue, apathy, lack of appetite, and exhaustion, which is easily induced. Headache with indigestion and neuritis are common, much of which is due to surroundings, to posture and habits. Palpitation with fainting attacks is by no means unusual in these women. These are typically limited individuals. The more pathognomonic symptoms, however, are dysmenorrhea, amenorrhea, and sterility. Without doubt, amenorrhea is chiefly due to ovarian hypofunction in the majority of cases, but frequently there is ground to explain such occurrences in these individuals to the low state of vitality; also the anemia, which is easily produced in them, by acute or chronic infectious disease.

Sterility in the hypoplastic is the rule and is usually the result of defective uterus or ovaries or, of course, the absence of these organs. In such instances it is usually hopeless. In functional upsets a possibility of improvement is possible.

Dysmenorrhea in this type of individual is the characteristic and diagnostic symptom, and is also the most frequent appeal for treatment. Many theories as to the cause have been advanced, as obstruction of the os, angulation of the canal at the junction of the cervix and body, thickened endometrium, poor circulation and enervation incident to faulty development. In addition to these theories, the belief of ovarian dysmenorrhea as a cause is held by Olshausen[2] due to disturbed internal pressure of the ovary from thickened tunica. Kronig,[3]

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admitting the possibility of mechanical causes, thinks that this type of pain is a form of psychoneurosis in this variety of patient. Fliess and Schaeffer[4] assert that many patients have dysmenorrhea because of irritation of the genital spot on the tuberculum septi, which seems to bear out the theory of nerve insufficiency. Memge[5] also describes the pain as due to physiologic menstrual contraction pain which would probably not cause distress in normal individuals. Undoubtedly, the combination of poor nervous balance, poor enervation, and disturbed circulation due to mechanical difficulty all go to cause temporary upset of the nervous system in weakened individuals, and hence give pain.

Therapy for such a problem will of necessity be attended with a large percentage of failures. Without doubt, great improvement has already been made since the advent of considerably better hygienic routine for women of the past two decades. Recognition of the condition is of the greatest importance, and constant efforts to secure proper social, hygienic and developmental betterment by physicians and sanitarians will, indirectly, bring about the greatest benefit. The constitutional or hygienic treatment certainly offers the greatest chance for good results. Treatment of syphilis, tuberculosis, alcoholism, and blood diseases should receive their appropriate places assigning the medical treatment of dysmenorrhea, sterility and the like, to a secondary position. and, also, their relief by operative measures at first. Careful supervision of the daily program of all girls during the development period will eliminate many instances of arrested development. The greatest care should be made to secure complete recovery from the acute illnesses that imperil childhood; overlong rest and care probably will avoid sequelae of this type. Of equal importance is the reduction of the educational and social problem during the period of adolescence. Probably maturing girls are over-taught, over-entertained, underfed, and improperly clothed. during this period. The effect of too great strain, pernicious habits, and fatigue, are beyond question. The phobia for thinness by starvation cannot be to greatly condemned.

This type of patient should be placed upon a definite routine by the internist, making every effort to correct anemia by proper food and internal medication. They should also derive great benefit from corrective exercise; and defective posture should be overcome by proper orthopedic advice and device.

Treatment of the particular conditions and their particular symptoms is attended with rather indifferent success. The hygienic and constitutional treatment for appropriate conditions usually is successful in improving the situation from the general standpoint. Amenorrhea in this way often gives way to regularity when the general health improves. Sterility, when due to absent or defective organs, is hopeless. If arrested function and development is the case, some few may be aided to become mature by general therapeutic measures, aided, also, to some degree, by correcting mechanical defects, by operation, and by the use of orthopedic devices, pessaries.

The relief of dysmenorrhea is, of course, the most acute demand, and everything imaginable has been offered for this problem. Supplementing the treatment for specific instances alluded to above, the relief for this condition may be brought about in one of three ways, — administration of antispasmodics, chiefly for the spastic uterus of the retrocessed type; endocrine administration to supplant lacking ovarian tissue or to stimulate dormant ovarian activity; or by surgical measures directed towards correcting a mechanical defect. Alcohol and opium should not be advised. The antispasmodics, viburnum, atropine, benzol benzoate, etc., have been fairly successful in relieving the pain although temporarily only. As to the administration of endocrines in dysmenorrhea, it is felt that the method is an entire failure, much better results being gained by the administration of iron and arsenic in the intermenstrual period and the antispasmodics to meet the periodic pain. Few, if any, instances of infantile uterus have been increased in size or function by administration of endocrines. On the other hand, administration of ovarian extract is extremely efficacious in producing increase of flow and it also aids in securing more normal function in every respect, except relief of pain.

Efforts to relieve dysmenorrhea by surgical and orthopedic means have been made repeatedly in this group of cases chiefly where the uterus is infantile, or where there exists the allied condition of retrocession with either anteflexion or retroflexion. For such conditions, dilatation and curettage is a most lamentable failure, being really a form of assault. Dilatation in a small number of cases gains a respite of a few months. Curettage of the in-

terior of the uterus, already defective, cannot help but add injury. Replacement of a retroverted uterus by a well fitting pessary is often of great value. Also, there is no denying the fact that occasionally the stem pessary, by stimulating a small but normal uterus, does bring relief from dysmenorrhea, occasionally causing further development, and finally rewarding the patient by the occurrence of pregnancy.

Following the method of Graves[6] I am gratified to report that dilatation of the cervix followed by shortening of the round ligaments has been of great benefit in the last series of twenty-five cases treated for dysmenorrhea from retrocession with either acute anteflexion or retroflexion, and that, in my hands, no other method has been attended with any success whatever. The Gilliam type of round ligament shortening was done and the relief seems to be permanent after one year.

Conclusions

1. The hypoplastic tendency is a great handicap in national, racial, social and personal life. The efficiency and well-being of individuals so affected is considerably reduced, thereby curtailing both earning power and other forms of endeavor, to say nothing of the disadvantage of poor health from the stand point of pain, annoyance, fatigue, and disappointment in the manifest purposes in life.

2. This condition may be limited and offset by the correlated efforts of physicians, orthopedists, and gynecologists, to reduce hereditary taint, to limit the number and extent of intercurrent diseases during the formative period of life of women, and by the treatment by appropriate medical or surgical means of the particular cases where the defects are already present.

3. Dilatation of the cervix uteri with shortening of the round ligaments seems to offer the greatest relief in cases of retrocession uteri, which seems to be the chief cause of the pathognomonic symptom, dysmenorrhea.

1. Graves "Gynecology." Pag 585.
2. Graves "Gynecology." Page 550.
3. Graves "Gynecology." Page 550.
4. Crossen "Gynecology." Page 1001.
5. Crossen "Gynecology." Page 1001.
6. Graves "Gynecology." Page 516.

THE SURGICAL ASPECT IN GYNECOLOGY.*

By GILBERT FRANKLIN DOUGLAS, M. D., Birmingham, Ala.

In considering this subject, we shall have to keep the fact before us that there is a medical as well as surgical side in the practice of gynecology, and that this fact is true in practice as well as in theory.

Purposely, only a few of the more salient points will be touched on of the several conditions dealt with in this paper.

First, for consideration, let us study the perineum. This as a rule requires very little thought until after childbirth, when, if a marked laceration or tear occurs, or if there is a separation of the fibers of the perineal muscles even though they are not torn, we have the relaxed outlet which would cause the patient to suffer the same degree of discomfort that she would if there was a laceration of the muscle fibers themselves. For this reason, we should never content ourselves that there is no pathology of the perineum when evidences of laceration of the mucous membrane are not seen superficially, when the patient complains of the uterus or bladder extruding from the vaginal outlet. When there is a persistent heaviness or dragging sensation in the vaginal region without other pathology, we should examine before discharging our patient and telling her there is no trouble.

Now, what is the best treatment to be instituted? I feel there is only one logical treatment, and that is perineorrhaphy. The technic used in this operation makes very little difference provided it is based on fundamental principles, which are to approximate the levator muscles, making sure also that both the deep and superficial fascias are brought together with suture material that will hold long enough for the muscles and fascias to become firmly united. My personal preference is to use either forty day chromic catgut or "figure 8" sutures of non-absorbable suture material, so I can feel assured that they will hold long enough for union to take place. When these basic principles are used, with proper care to prevent infections from the rectum, also seeing that proper hemostasis has been effected, we can usually expect desired results.

Now, just a word relative to immediate perineorrhaphy following delivery. I feel this should always be done when at all practicable, and, unless the physician delivering the

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woman is prepared to do this or will call some one to help him at times when needed, I believe that he is justified in refusing to do obstetrics. Of course, I realize there are emergencies when this cannot be done, but my plea is that generally this should be provided for. Probably it is irrelative in this paper, but let me suggest that we never deliver a woman without examining the perineum after delivery is completed to see if there is a laceration. Doing so routinely and carefully, there will be fewer exclamatory remarks, "I seldom have a laceration of the perineum during delivery!"

A second degree laceration of the perineum properly repaired will relieve many of the pains and hours of discomfort of the patient.

Next in order of study, what method of surgical treatment shall be instituted in lacerations or diseased conditions of the cervix? (This paper only deals with the surgical aspect; consequently, I will not discuss the medical treatments used, as there are many). Where we have laceration with chronic infection following, which does not respond to medical treatment, we should unhesitatingly recommend trachelorrhaphy to remove the focus of infection, and also to rid the tissues of the chronic irritations which no doubt are conducive to the development of carcinoma of the cervix. To allow this focus to remain is only leaving a point of infection which creates toxins that cause sytemic symptoms the same as are caused by foci in other parts of the body. So, if we wish to clear the water in the stream, "First, we have to get the old sow out of the spring."

My preference of the technic to be used in trachelorrhaphy is that of Sturndorf, of New York, which in principle is to remove the infected cervical glands without destroying any more of the musculature of the cervix than is practicable. By doing this, the woman, with future pregnancies, can, as a rule, conceive and carry her baby to term without aborting, for the muscle tissue of the cervix has been left intact in sufficient quantity not to weaken the cervix unduly. In doing this operation a circular incision is made around the cervix near the external os, carrying only through the mucous membrane and endeavoring to get rid of all the diseased mucous membrane and scar tissue. This tissue is dissected up like a sleeve to a point opposite the internal os. The cervical glands are removed by cutting a cone-shaped mass, including the cervical canal, with apex of cone upward so as to reach as high as the internal os. The cuff of mucous membrane is then sewed, catching a bite in the mucous membrane both anteriorly and posteriorly. Taking the anterior lip first, the needle is passed within the new cervical canal, allowing it to gain exit through cervical tissue to a point considerably above the point of original entrance in mucous membrane. The needle is threaded on the other end of the suture and carried through the same maneuver as before. This is tied, bringing the tip of mucous membrane high up into the cervical canal, approximating the raw tissues so that healing may take place readily, at the same time lining the cervical canal with healthy mucous membrane. I use either forty day chromic cat-gut or non-absorbable suture material, so as to maintain coaptation until healing has taken place. Excellent results are obtained both functionally and cosmetically.

To temporize with an ulcerated or inflamed cervix indefinitely without surgical interference is, as it were, courting disaster—a small bit of fire smouldering along to develop to a greater point of ignition, manifesting itself in the form of a rapidly developing cancer of the cervix. Cervical pathology is always to be looked upon with due consideration as there is great danger of malignancy.

Having discussed briefly the perineum and cervix, let us consider some of the intra-abdominal or pelvic conditions. In studying diseases of the tubes, my convictions are that, relatively speaking, all acute tubal conditions are entitled to being treated as medical gynecology. This may prove to be only a palliative measure, but, if so, we can then operate. On the other hand, many of these conditions are cured and the patient can go through life happy, with the ability to conceive and have children, which certainly adds to the psychic poise of most every healthy woman.

When a trial has been given the medical treatment and the condition has not been cured, I feel that the patient is entitled to surgical treatment, removing the tubes, for, if she is working and dependent upon her physical endurance to make her financial support, she is certainly more capable if going about her duties comfortably than she is if suffering. In this connection, let me insist that we do not remove tubes promiscuously when we have operated on account of a mistaken diagnosis, basing this on the idea that it is imperative to do something to satisfy our conscience. If

there be no pathology, let us gracefully get out without doing further destruction.

In many cases where there is pathology of the tubes, we also find trouble with the ovaries, due to infection which has gained entrance by contiguity, continuity of tissues, or from the blood stream. Of course, when there has been irreparable damage done to the ovary or ovaries, the only sensible thing to do is to remove what is necessary, but there are many cases where the ovaries are literally covered over by pus tubes, when if the tubes are removed without too great a disturbance to the blood supply of the ovaries, they will clear up and soon appear normal again. We are not warranted in removing all ovaries which happen to be in close proximity to diseased tubes, and certainly we are not justified in unsexing any woman where pathology or other valid reasons do not so indicate. On the other hand, we have the same obligation to remove diseased tissues and not allow them to remain intact so they will cause a subsequent operation within a short time, unless by special request of the patient that such so-called conservatism be practiced.

In all operations where the blood supply of the tissues involved comes from a common supply in an immediate location, we should be careful not to destroy any more of the supply than possible, for to do so will often cause cystic ovaries or other pathology which could otherwise be avoided.

In operating for uterine troubles there are many things to consider. As a broad principle, wherever there is a question of malignancy, we should do a hysterectomy, if such is indicated, rather than use palliative treatment.

Briefly, in dealing with uterine myomata, all things being equal, the sooner the tumor is extirpated, should it be growing in size or giving symptoms by pressure, causing bleeding or other constitutional symptoms, the better it is for the patient, for doubtless many of the tumors diagnosed as benign are of malignant origin, or ultimately prove malignant and cause death, whereas, if they were operated upon early, the patient would be relieved of the uncomfortable symptoms, and an early death due to procrastination might be prevented.

In operating for uterine myomata, we are put to the test on many occasions to know just what type of operation should be done, especially when dealing with fibroids of the fundus. These growths are often seen in comparatively young women who only have one or two children and want more. If possible to do a myomectomy in these cases without having to jeopardize the musculature of the fundus, it is best to do so where the patient understands the possibility of the development of another fibroid and a subsequent operation, but still desires the palliative operation. Those of us who have attended Professor Tuffie's Clinic in Paris will remember seeing him remove from one to a half dozen fibroids from the same uterus with subsequent pregnancies.

If we are doing a hysterectomy where malignancy of the cervix is not suspected, what shall be our plan? Do supravaginal hysterectomy, total hysterectomy, or pan-hysterectomy —that is, removing uterus *in toto*, tubes and ovaries.

First, we will discuss the supravaginal hysterectomy. If we are operating for a fibroid of the fundus without involvement of the cervix, and if there is no infection of the cervix or suspicion of cancer, I think by all means the simple operation is the one of choice, for certainly there is much less mortality in the hands of the average operator in doing supravaginal hysterectomies than in doing total hysterectomy. However, where there is a definite infection of the cervical glands or suspicion of malignancy, the more radical operation, total hysterectomy, should be done. If the total hysterectomy is not done where the cervical glands are involved, we should first do a trachelorrhaphy to remove the foci of infection, for, as above stated, if the foci are left, we shall only expect systemic symptoms to follow.

Where the cervix is involved, either by chronic infection or if there be suspicion of malignancy, wisdom will tell us to do a total hysterectomy, but still my belief is, if the tubes and ovaries are healthy, it is best to leave them, especially the ovaries, for I think that the constitutional symptoms caused by an abrupt surgical menopause are more detrimental than are the chances for having a subsequent operation for cystic or diseased ovaries. The few months or years that the ovaries give off their hormones or internal secretory products certainly make the menopause much easier after hysterectomy.

Just a word about the technic of total hysterectomy. In married women it is certainly much more comfortable in after life if, in closing the peritoneum about the upper margin of the vagina, the method used in lengthening the vaginal vault be used. This can be

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done by sewing the edge of the peritoneum where it is reflected over the bladder to the upper margain of the vagina in front, and the reflected portion of peritoneum posteriorly to the cut upper margin of the vagina; then, when we go to close the folds of the broad ligament in approaching the edges of the vagina, the peritoneum both anteriorly and posteriorly can be approximated by sutures high enough so the vagina can be considerably lengthened without causing any inconvenience, and still all of the raw surfaces are covered over with peritoneum. (This is the method of Faure, of Broca Hospital, in Paris).

Now, thirdly, when shall we consider panhysterectomy or the complete removal of the uterus, tubes and ovaries? I think this can be answered briefly by saying that this should be done when there is malignancy of the fundus or beginning malignancy of the cervix, and where we have a chronic inflammation of the tubes and ovaries to the extent that we would not expect it to clear up if left intact. To leave a focus of infection is to leave trouble which will become manifest either locally or constitutionally within a short time. I believe in conservatism when we can hope to see our patient well, but if this cannot be hoped for without radical surgery, let us accept the inevitable —radical surgery.

The female breasts are to be properly examined and, if diseased, treated in a sane manner, for it is certainly much better to sacrifice a breast by removing it than it is to treat by palliative methods until metastases have taken place into the lungs or other remote organs or tissues of the body when a cure may be impossible.

Now, in addition to the foregoing generally accepted gynecological operations, we have constantly a phase to deal with which has not heretofore been mentioned, that of the bladder, ureters and kidneys, also the rectum, sigmoid, colon, etc. These latter organs are overlooked so frequently, especially from the diagnostic viewpoint, until I feel it timely to say if we ever expect to do the best gynecological as well as abdominal surgery, these organs will have to be considered and properly diagnosed. I believe that every gynecologist should be able to do good cystoscopic and sigmoidoscopic work, or else he should have some one associated with him constantly who can do this work for him; otherwise, many needless operations will be done and the pathological conditions, stone in the kidney, ureter and bladder, cancer of these organs, and also cancer of the sigmoid, rectum, etc., will be overlooked—due to not properly examining the patient by these last named methods.

Now, in conclusion, let me say that no surgeon should start out primarily to do gynecological surgery until he has first had the fundamental training in general surgery, for often it is much easier to remove a gall-bladder, or a kidney, do a gastro-enterostomy or many of the other major operations in the upper abdomen, than it is to do a hysterectomy, repair a vesico-vaginal fistula, or repair a third degree laceration of the perineum successfully. When we have opened the abdomen, we should know how to take care of any surgical condition that may arise, as we will certainly have to meet these conditions even though we do gynecological surgery primarily. Owing to the more rapid absorptive powers of the diaphragm and other tissues in the upper abdomen, naturally the patient can stand more toxins in the lower abdomen and pelvis than in the upper, but this fact does not warrant undue abuse of the tissues of the lower abdomen and pelvis.

In our last consideration, let us not forget that a patient can be compared very much to a piece of machinery in that they can stand a certain amount of trauma and shock without much reaction, but when we go beyond the reasonable point our patient suffers. To do a hysterectomy and then go into the upper abdomen and remove a gall-bladder, do a gastro-enterostomy, etc., is, as a rule, bad surgery, and we can only expect disaster to follow. It is certainly much better for our patient to be subjected to more than one operation and recover than to attempt too much at one time and die from shock.

Conclusions

1. Lacerations of the perineum should be repaired immediately, if possible; if not, then secondarily when giving symptoms.

2. Trachelorrhaphy should be done to remove foci of infection and get rid of irritation, so as to prevent subsequent cancer formation.

3. Determining the type of hysterectomy to be done depends on the question of malignancy, infections of cervix, type of myomata, etc.

4. My belief is that all ovaries should not be removed because hysterectomy is done, if there are no indications of malignancy present. To leave ovaries intact relieves many of the

uncomfortable symptoms of an abrupt surgical menopause.

5. Myomectomy may be practiced in cases of fibroids of the fundus, to give opportunity for subsequent pregnancies.

6. Female breasts should always be examined in doing routine gynecological examination and, if malignant, sacrifice them before metastases take place.

7. In gynecological surgery, we should always keep in mind the pathology of the kidney, ureter, bladder, rectum, sigmoid, and colon, and be able either to do or to have done cystoscopic or sigmoidoscopic examinations when at all indicated.

8. Before presuming to do gynecological surgery as a specialty, we should first have the fundamental surgical training in abdominal and general surgery.

804-6 *Empire Building.*

Clinical Reports

A CASE OF CANCER OF THE STOMACH IN A MAN 73 YEARS OF AGE, WITH PARTIAL GASTRECTOMY UNDER LOCAL ANESTHESIA.*

By J. SHELTON HORSLEY, M. D., Richmond, Va.
From the Surgical Department of St. Elizabeth's Hospital.

Since the last session of the Medical Society of Virginia, in October, 1925, I have done partial gastrectomy in two cases of cancer of the stomach, both patients past seventy years of age. During this period I have done partial gastrectomy for non-malignant ulcer in six other cases, making a total of eight partial gastrectomies. All of the patients recovered from the operation.

The two cancer cases made a very satisfactory immediate operative recovery. The pulse in neither one reached 100 during the operation. One of these cases, Mr. C. L. W., aged seventy-one years, operated upon December 29, 1925, was reported in the VIRGINIA MEDICAL MONTHLY for May, 1926. He is now in good health, and there is no sign of recurrence.

The other patient, Mr. B. C. M., seventy-three years of age, a farmer, complained of "stomach trouble". There was a somewhat movable tumor in the epigastric region. Roentgenologic examination showed an extensive filling defect in the pyloric portion of the stomach—apparently advanced carcinoma. He entered St. Elizabeth's Hospital on May 24, 1926, and was operated upon under local anesthesia on May 28, 1926. The pyloric portion of the stomach contained an infiltrating mass. Along the lesser curvature the invasion was rather more extensive than elsewhere, but a clamp could be applied securely just above the apparent upper limit of the disease in the lymph nodes of the lesser curvature. Section of the duodenum and about the middle of the body of the stomach was made with the electric cautery, and the pyloric half of the stomach was removed. (Figures 1 and 2). The stump of the stomach was joined to the stump of the duodenum by a modified Billroth I

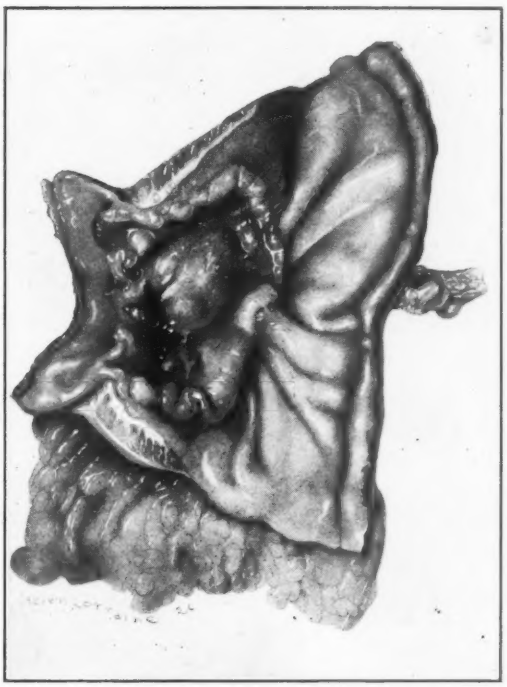

Fig. 1.—Mr. B. C. M. Drawing showing interior of stomach. On the left is the margin of the duodenum. In the pyloric portion of the stomach adjacent to the duodenum is a large ulcer with elevated margins. The lymph nodes along the lesser curvature showed metastases.

operation. The modification that I have adopted consists chiefly in uniting the lesser curvature of the stomach to the upper border of the duodenum and in splitting the anterior surface of the duodenum to flare it open and so enable a satisfactory union to be made between the thick wall of the stomach and the thin wall of the duodenum. This operation can be used in a large percentage of cases. When too much of the stomach is involved or

*Case Report read before the fifty-seventh annual meeting of the Medical Society of Virginia, at Norfolk, October 14, 1926.

when the duodenum itself is diseased, a modification of the Billroth II operation, preferably the Hofmeister modification, or probably the Polya operation, may be done. This modified Billroth I appears much superior, however, to the other types of gastrectomies, as it unites the stomach to the duodenum, which is the natural receiving chamber for the stomach contents.

The patient left the table with a good pulse of 70. While his immediate operative recovery was satisfactory, a slight pneumonitis developed two or three days after the operation, his pulse rate reaching 120 and temperature 102.4. At the same time he had hiccoughs which persisted intermittently for about eight days. After recovering from these two affections, however, he improved rapidly and is now in excellent condition four and a half months after the operation.

An interesting feature about both of these cases is the excellent manner in which they stood the immediate operation. This was largely due, I think, to the fact that local anesthesia was used. Patients of this age usually withstand any general anesthetic poorly. A drug sufficiently powerful to render them unconscious makes heavy inroads on their resistance if it has to be given long enough to do a partial gastrectomy satisfactorily. In patients whose resistance is better the administration of a general anesthestic, particularly ethylene, may be advisable, but with the very old every possible precaution of safety must be taken.

Another interesting feature of this case is that the patient gave a history of indigestion for fifty years, and this indigestion, while not of the typical hunger-pain type, was relieved by an ulcer diet. Epigastric pain with anorexia and nausea had existed for about seven months. This later pain had no definite relationship to meals, and there was no relief by food or alkali. The nausea was slightly increased after taking food. The patient during this period had lost twelve or thirteen pounds in weight. In view of the fact that nothing else was found within the abdomen to cause the "indigestion," there may have been a peptic ulcer during at least a portion of the fifty years with later cancerous degeneration.

Fig. 2.—Photomicrograph of cancer of stomach shown in the preceding drawing. It is adenocarcinoma type, though the cells are not well differentiated. Some show distinct acini. In others there are merely groups of cells. It may be graded, according to the classification of Broders, as about 2½. (X 150).

The rather active discussion about the relative merits of medical and surgical treatment of peptic ulcer seems to be sometimes illogical. Medical treatment is necessary in the treatmen of peptic ulcers whether operation is done or not, and particularly after operation. It would appear almost as absurd to discuss the relative merits of setting a fracture and of wearing a splint as to debate upon the relative advantages of the surgical and the medical treatment of peptic ulcers. If a fracture is in good position no setting is necessary; if it is not in good position the broken bones must be properly aligned; but under either condition a splint must be applied. If a peptic ulcer can be cured by medical treatment intelligently given over a period of a few weeks or a few months, obviously this should be done, but when a patient has had such treatment and has not improved, and particularly if the X-ray shows a rather extensive ulcer in the stomach, there is no good reason for failing to resort to surgery. Delay in operating may be more justifiable in peptic ulcer of the duodenum than of the stomach, though this sometimes results in hemorrhage or perforation, and while cancer very rarely arises in the duodenum it does occur. There is not the same justification, however, in postponing operation for gastric ulcer. Every competent observer who is interested in pathology acknowledges the etiologic relation between gastric peptic ulcer and gastric cancer. At the Mayo Clinic it was put at one time as high as 70 per cent. The low estimate by others is 5 to 10 per cent.

In view of these things it appears that a proper policy to follow would be to give a reasonable chance for the cure of a gastric peptic ulcer by medical treatment unless there is a suspicion of malignancy, when operation should be done as soon as possible. If the ulcer does not heal readily as demonstrated not only by the disappearance of symptoms but by the extent of the ulcer when examined by a competent radiologist, a partial gastrectomy should be done. Surely no one knows of any case of gastric cancer that has been cured by other means than by excision. If, then, we delay an operation in a gastric ulcer that is not healing, we assume a very grave responsibility for the future of the patient.

Another point, too, is that many patients with gastric cancer are abandoned as hopeless who might be saved. Both of these old men were at first considered as probably inoperable from a radical standpoint, but by eliminating every possible operative danger, by using local anesthesia, and by uniting the stump of the stomach to the duodenum, recovery in each instance was satisfactory.

HILUS PNEUMONIA.*

By M. J. PAYNE, M. D., Staunton, Va.

A young lad in a military school gave the clinical picture of pneumonia. The physical findings were such that we could not definitely make a diagnosis of anything wrong in the chest. The X-ray showed a hilus pneumonia.

It teaches this lesson, that sometimes an X-ray of the chest, in acute conditions may disclose the true condition when otherwise it is not possible to make a correct diagnosis.

*Reported at the meeting of the Medical Association of the Valley of Virginia, at Staunton, May 27, 1926.

Health Organization of the League of Nations.

The first annual report of the Health Organization of the League of Nations appeared in July, 1926. This body is authorized to "take steps in matters of international concern for the prevention and control of disease." It consists of an advisory council correlated with the International Health Office in Paris, a permanent health committee of twenty members, and a health section which forms an integral part of the secretariat of the League. The health committee is the active body and is responsible for the technical direction of the health section.

The first task of the health organization was to collect and tabulate the official records of epidemic diseases from all countries where they are kept, and it expended much labor in securing uniformity and promptitude. Four commissions are engaged on such subjects as certification of causes of death, age and sex grouping, definition of stillbirth, and international standards for comparison of mortality rates. Bilateral sanitary conventions between adjoining countries also were established. Eleven special inquiry commissions studied the subjects of public-health training, malaria, cancer, tuberculosis, anthrax, smallpox, sleeping sickness, opium, sera, and biological products. Eight interchanges of public-health personnel were brought about during the year.

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Proceedings of Societies

MINUTES OF THE FIFTY-SEVENTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF VIRGINIA.

Norfolk, October 12-15, 1926.

GENERAL SESSIONS.

TUESDAY, OCTOBER 12, 1926

The Fifty-Seventh Annual Meeting of the Medical Society of Virginia convened in the ballroom of the Monticello Hotel, Norfolk, at 8 P. M., and was called to order by Dr. Israel Brown, Chairman of the Committee on Arrangements.

The invocation was said by Rabbi L. D. Mendoza.

The Society was welcomed in addresses by Dr. J. Warren White, on behalf of the Norfolk County Medical Society, and Hon. S. Heth Tyler, Mayor, on behalf of the city.

After announcements of coming meetings and of entertainments, the President, Dr. W. L. Harris, of Norfolk, read his address, entitled "A Country Surgeon," and showed several pictures of Dr. J. P. Mettauer—the subject of his sketch.

The memorial hour was next observed, and the names of thirty-six members of the Society who had died within the past year were read.

Dr. Walter A. Wells, Washington, D. C. (*invited guest*), read a paper entitled "A Review of the Case of the Last Illness and Death of Washington (illustrated by lantern slides), and Dr. Olin West, Secretary and General Manager of the American Medical Association, Chicago, Ill. (*invited guest*), then addressed the Society.

A paper entitled "Shall They Pass?" was read by Dr. J. Allison Hodges, Richmond.

Dr. H. U. Stephenson, Richmond, read a paper on "The Practice of Medicine: How It Should Be Regulated by Law." On motion, it was decided that these two papers should be discussed in the House of Delegates the following morning.

The Society then adjourned to meet Wednesday morning at ten o'clock.

WEDNESDAY, OCTOBER 13, 1926.

The Society met at 9 A. M. in the ballroom of the Monticello Hotel and was called to order by the President, Dr. Harris.

Upon call for reports of clinical cases, Dr. J. Shelton Horsley, Richmond, told of "A Case of Cancer of the Stomach in a Man Seventy-three Years of Age, With Partial Gastrectomy Under Local Anesthesia." This was illustrated by lantern slides.

The following five papers, comprising a symposium on the liver, were then presented:

"Physiology of the Liver," by Dr. Frank C. Mann, Rochester, Minn. (*invited guest*).

"Liver Function from the Standpoint of Diagnosis," by Dr. Walter B. Martin, Norfolk.

"Roentgen Ray Studies of Diseases of the Gall Tract," by Dr. Fred M. Hodges, Richmond.

"Medical Treatment of Liver and Gall Tract Diseases," by Dr. J. C. Flippin, University.

"Surgical Treatment of Liver and Gall Tract Diseases," by Dr. Hugh H. Trout, Roanoke.

These papers were discussed by Drs. Charles C. Haskell, Richmond; J. Shelton Horsley, Richmond; Wright Clarkson, Petersburg, and by Dr. Mann, in closing.

Dr. Charles C. Haskell, Richmond, read a paper entitled "A Review of Various Methods Proposed for the Treatment of Mercuric Chlorid Poisoning," which was discussed by Dr. J. Morrison Hutcheson, Richmond.

A paper on "Heart Sounds and Their Interpretation" was read by Dr. Garnett Nelson, Richmond, and was discussed by Drs. Manfred Call, Richmond; J. C. Flippin, University, and by Dr. Nelson, in closing.

Mr. Wortley F. Rudd, Ph. G., Medical College of Virginia, Richmond, read a paper entitled "The Physician and the Pharmacist."

The Society adjourned to meet at 3 P. M.

AFTERNOON SESSION, OCTOBER 13.

The Society met in the ballroom of the Monticello Hotel at 3 P. M. and was called to order by the President.

Dr. Robert C. Bryan, Richmond, read a paper entitled "Further Remarks on Prostatectomy: Observation, Preparation, Technic, and Complications," which was discussed by Drs. R. L. Payne, Norfolk; A. I. Dodson, Richmond, and ----------.

Dr. John H. Neff, of the Department of Urology and Proctology, Medical School of the University of Virginia, read a paper entitled "Kidney Tumors: Report of Cases."

A paper on "Purpura of the Urinary Tract" was read by Dr. Joseph F. Geisinger, Richmond. (Lantern slides).

The privileges of the floor were extended to Dr. A. J. Crowell, of Charlotte, N. C.

Dr. A. I. Dodson, Richmond, read a paper on "The Management of Ureteral Calculi" (lantern slides), which was discussed by Drs. Herbert C. Jones, Petersburg, and A. J. Crowell, Charlotte, N. C.

A telegram from the Southern Medical Association was read, conveying greetings and wishes for a successful meeting.

Dr. Dudley C. Smith, of the Department of Syphilology and Dermatology, Medical School of the University of Virginia, read a paper entitled "The Prevention of Syphilis," which was discussed by Major H. L. Freeland, M. C., U. S. A., Richmond; Drs. Roy K. Flannagan, State Board of Health, Richmond; W. B. McIlwaine, Petersburg; St. George T. Grinnan, Richmond; ----------; and by Dr. Smith, in closing.

Dr. T. Latane Driscoll, Associate in Syphilology, Medical College of Virginia, Richmond, read a paper on "Correlation of Lesions of the Genitalia," which was discussed by Drs. Lawrence T. Price, Richmond; W. A. Brumfield, Blacksburg; ----------; Major H. L. Freeland, M. C., U. S. A., Richmond; Dr. Dudley C. Smith, University, and in closing by Dr. Driscoll.

Dr. A. J. Crowell, Charlotte, N. C., President of the Tri-State Medical Association of the Carolinas and Virginia, in a brief address explained the purposes of the Tri-State Association.

The Society then adjourned to meet at 8 P. M.

EVENING SESSION, OCTOBER 13.

The Society met at 8 P. M. in the ballroom of the Monticello Hotel and was called to order by the President.

A paper on "The Reticulo-endothelial System, with Special Reference to the Lymphocyte," was read by Dr. H. E. Jordan, of the Medical Department of the University of Virginia, and was discussed by Drs. J. Shelton Horsley, Richmond, and Harry T. Marshall, University.

Dr. Harry T. Marshall, University, read a paper entitled "The Ancestry of Disease."

Dr. M. O. Burke, Richmond, read a paper on "Diseases of Middle Life: Can We Prevent Them?"

A paper entitled "Coronary Occlusion: Clinical Observations," was read by Dr. T. Duckett Jones, University, and was discussed by Dr. T. Dewey Davis, Richmond.

Dr. E. Clarence Rice, Washington, D. C., read a paper entitled "The Blood in Scarlet Fever," prepared by Drs. Janvier W. Lindsay, E. Clarence Rice and Maurice A. Selinger (Laboratories and Scarlet Fever Service of the Garfield Memorial Hospital,

Washington, D. C.) This was discussed by Dr. Warren T. Vaughan, Richmond.

The Society then adjourned to meet on Thursday at 9 A. M.

THURSDAY, OCTOBER 14, 1926.

The Society convened in the ballroom of the Monticello Hotel at 9 A. M. and was called to order by the President.

The following four papers, on the subject of goitre, were read:

"Reminiscence of Etiology and Original Medicinal Treatment of Goitre," by Dr. A. W. Graves, Harrisonburg.

"Thyroid Deficiency," by Dr. James H. Smith, Richmond.

"Further Experiences with Iodin in Goitre," by Dr. I. A. Bigger, of the Department of Surgery, University of Virginia Hospital, University.

"The Diagnosis and Treatment of Exophthalmic Goitre," by Dr. W. C. Caudill, Pearisburg.

The courtesies of the floor were extended to Dr. S. O. Black, of Spartanburg, S. C.

These papers were discussed by Drs. Wm. H. Higgins, Richmond; Carrington Williams, Richmond; Warren T. Vaughan, Richmond; S. O. Black, Spartanburg, S. C., and Vincent W. Archer, University.

Dr. Roger H. Dennett, of the Pediatric Department, New York Post-graduate Medical School and Hospital, New York City (*invited guest*), read a paper entitled "Acute Upper Respiratory Infections of Childhood." This was discussed by Drs. St. George T. Grinnan, Richmond; H. S. Hedges, Charlottesville; W. B. McIlwaine, Petersburg; H. M. Snead, South Hill; C. S. Dodd, Petersburg; J. H. Hiden, Pungoteague; W. P. McDowell, Norfolk, and in closing, by Dr. Dennett.

A paper on "The Treatment of Whooping Cough by Jennerian Vaccine" was read by Dr. St. George T. Grinnan, Richmond, and was discussed by Drs. W. B. McIlwaine, Petersburg; Roy K. Flannagan, State Board of Health, Richmond; Roger H. Dennett, New York City, and by Dr. Grinnan, in closing.

Dr. G. Bentley Byrd, Norfolk, read a paper on "Lessening the Pains of Childbirth," which was discussed by Drs. C. J. Andrews, Norfolk, and----------.

Dr. J. Shelton Horsley, Richmond, presented a paper on "Tumors of the Breast, with Special Reference to Their Diagnosis and Treatment," illustrated by lantern slides.

The Society then adjourned to meet at 5 P. M.

AFTERNOON SESSION, OCTOBER 14.

The Society met in the ballroom of the Monticello Hotel at 5 P. M. and was called to order by the President.

The report of the House of Delegates was presented by the Secretary of the Society and was adopted as read.

Following the adoption of this report, Dr. E. L. Kendig moved that the Constitution and By-Laws, just adopted, be put into effect "in toto" at the end of the 1927 annual session, but that the part of the said Constitution and By-Laws providing for the election of a House of Delegates be put into effect in time for the election of a House of Delegates for the 1927 annual session, and that all officers, delegates to the American Medical Association, and committeemen be selected at the 1927 annual session under the provisions of said Constitution and By-Laws. Adopted.

Dr. W. Lowndes Peple, McGuire Clinic, Richmond, read a paper on "Cancer of the Cervix: Its Past, Its Present, and Its Future." This was discussed by Dr. Joseph T. Buxton, Newport News.

A paper entitled "Gynecology for the General Practitioner," was read by Dr. Southgate Leigh, Norfolk, and was discussed by Dr. J. Kennedy Cross, Newport News, and by Dr. Leigh, in closing.

Dr. Ennion G. Williams, State Health Commissioner, Richmond, read a paper entitled "The State Board of Health and the Clinical Care of the Sick."

The privileges of the floor were extended to Col. C. R. Keiley, of the State Health Department, Richmond, and Dr. Williams' paper was discussed by him and by Dr. J. W. Preston, Roanoke.

The Society adjourned to meet at 8 P. M.

EVENING SESSION, OCTOBER 14.

The Society met at 8 P. M. in the ballroom of the Monticello Hotel, and was called to order by the President.

Dr. Charles Phillips, Professor of Pathology, Medical College of Virginia, Richmond, read a paper entitled "The Present Laboratory Technician Situation in the State."

The paper of Drs. H. B. Mulholland and J. C. Flippin, of the Department of Internal Medicine, Medical School of the University of Virginia, on "Spontaneous Pneumothorax, with Report of Cases," was read by Dr. Mulholland.

Dr. C. C. Coleman, of the Department of Neurosurgery, Medical College of Virginia, Richmond, presented a paper entitled "The Diagnosis and Treatment of Intracranial Hemorrhage Following Trauma," illustrated by lantern slides.

Dr. J. Coleman Motley, Abingdon, read a paper entitled "A Report of Two Cases of Perforation of Duodenal Ulcer in the Hospital," which was discussed by Drs. A. Murat Willis, Richmond; W. A. Brumfield, Blacksburg; Warren T. Vaughan, Richmond, and by Dr. Motley, in closing.

Dr. Carrington Williams, McGuire Clinic, Richmond, read a paper on "Aseptic Intestinal Resection: Report of Cases." This was discussed by Dr. J. Shelton Horsley, Richmond, who showed some lantern slides illustrating the several steps of the operation.

A paper on "The Treatment of General Peritonitis and Allied Conditions" was read by Dr. Julian L. Rawls, Norfolk.

Dr. Vincent W. Archer, Department of Roentgenology, University of Virginia Hospital, University, read a paper entitled "The Roentgen Ray Treatment of Subacute Infections."

The Society adjourned to meet on Friday at 9 A. M.

FRIDAY, OCTOBER 15, 1926.

The Society met in the ballroom of the Monticello Hotel at 9:30 A. M. and was called to order by the President.

Dr. S. B. Whitlock, Norfolk, read a paper entitled "Skull Pathology Revealed by the Roentgen Ray," illustrated by lantern slides. This paper was discussed by Drs. L. F. Magruder, Norfolk; and ----------.

A paper on "Harelip and Cleft Palate," illustrated by lantern slides, was read by Dr. J. S. Horsley, Jr., of Richmond, and was discussed by Dr. W. L. Harris, Norfolk, President.

Dr. J. Shelton Horsley offered a resolution extending the thanks of the Society to the Monticello Hotel, the Norfolk County Medical Society, and the people (especially the ladies) of Norfolk, for their hospitality and entertainment. This resolution was adopted.

Major Guy Qualls, M. C., U. S. A., was elected to associate membership in the Society.

Dr. Harris, President, asked Dr. Israel Brown and Dr. C. R. Grandy to escort the new president, Dr. J. Shelton Horsley, to the chair, and extended his congratulations and sympathy to the new president.

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Dr. Horsley spoke as follows:

"It is needless for me to say how much I appreciate this honor. Being president of the State Society is an honor, of course, that anyone would envy, particularly coming to me, as it does, from my good friends. I certainly appreciate it. It reminds me of one of the letters that William Byrd wrote to a Mr. Simmons. Simmons was a Fellow of the Royal Society and so was Byrd. (This was the second Byrd, the founder of Richmond. Just how he horned in on the F. R. S. I do not know, but he did.) Byrd was very much impressed with the virtues of ginseng. Simmons, who was a much more scientific fellow than Byrd, did not think much of it; but Byrd kept pestering him with it. Finally Simmons was taken sick, and Byrd sent him some ginseng, with a letter saying that it would "strengthen the stomach, comfort the bowels, warm the blood, and frisk the spirits considerably." I think the last two circumstances are accomplished by being elected president of the State Society, for it certainly warms the blood and frisks the spirits exceedingly.

"I am glad, too, to succeed Dr. Harris, because Dr. Harris stands for a thing we appreciate more and more as we get older. He stands for character. No matter how much intellect a man has, if he has not the fundamental character and does not increase it as he grows older, he is merely sounding brass and a tinkling cymbal. I think Dr. Harris's life and work stand out not only for professional accomplishment but for his fine character as a man and as a physician. In that sense any one of us might be glad to follow him." (Applause.)

The Society then adjourned *sine die*.

BUSINESS SESSIONS

House of Delegates

The House of Delegates of the Medical Society of Virginia held its regular meeting at the Monticello Hotel, Norfolk, Virginia, at 9 A. M., October 13, 1926. The meeting was called to order by the first vice-president, Dr. T. D. Jones, of Richmond. Roll call showed an attendance of twelve councilors and forty-two delegates.

Dr. Olin West, Secretary and General Manager of the American Medical Association, was present and was called on to address the House. In a few words, he gave greeting from the A. M. A. and invited all members of our Society to visit the A. M. A. headquarters whenever in Chicago. He stated that he wished to assure the members of the Medical Society of Virginia of the real interest which the American Medical Association felt in our State organization.

The regular order of business was then resumed and reports of the Secretary-Treasurer were read.

Report of the Secretary-Treasurer

TO THE MEMBERS OF THE HOUSE OF DELEGATES OF THE MEDICAL SOCIETY OF VIRGINIA:

I have the honor to submit the following report:

Total membership reported at 1925 meeting	1,838	
New members enrolled since then	65	
Reinstated	9	
		1,912
Lost by		
Death	36	
Resignation	14	
Expulsion	1	
Non-payment of dues or lost	43	
		94
Net total		1,818

We have been advised during the year of meetings of the Executive Council, Publication and Legislative Committee, Walter Reed Commission, Committee for Revision of Constitution and By-Laws, and Committee for selecting a suitable memorial to Dr. Mettauer.

Drs. Southgate Leigh and S. S. Gale, regularly elected delegates, represented our Society at the Dallas meeting of the American Medical Association. We were unable to secure any one to act as our third delegate. At this meeting, one of our delegates, Dr. Southgate Leigh, introduced in the House of Delegates the resolution headed "Irregulars," which was referred to the Reference Committee and reported back, advising that every State Association be urged to co-operate with the American Medical Association in legislative matters and also requested the trustees of the A. M. A. to aid the State Associations in every possible way.

Dr. Leigh also introduced a resolution on medical education which was reported favorably by the Reference Committee and referred to the Council on Medical Education.

Last November, your Secretary attended the annual conference of secretaries of constituent State medical associations in Chicago, to which are invited both secretaries and editors of the state journals, expenses being paid by the American Medical Association. This conference is an excellent opportunity for learning that other states have troubles similar to our own and for obtaining ideas as to how some states are trying to solve their problems.

In accordance with action taken at our 1925 meeting, a committee composed of Dr. E. L. Kendig, chairman, and Drs. Charles R. Grandy and Francis H. Smith, was appointed by the Executive Council to draft a Constitution and By-Laws to be presented at this meeting. This committee has completed its work and will present its report.

The Executive Council likewise appointed a committee of three—Dr. A. G. Brown, Jr., chairman, and Drs. P. A. Irving and J. Allison Hodges—to consider the matter of placing a tombstone to mark the grave of Dr. John Peter Mettauer.

The secretary visited several county and district societies and announces the re-organization of Nansemond, Elizabeth City, Charlotte, Tazewell and Princess Anne County societies. The Southwestern Virginia Medical Society returned its charter, which included Montgomery, Pulaski, Wythe, Smyth and Washington counties and, in accordance with their request, were sent a new charter to include in addition to the above named, the counties of Carroll, Bland, Grayson and Giles, a total of nine counties. New charters were issued Cumberland County and the Pittsylvania-Danville Medical Society, it having developed that the city of Danville was operating apparently independently of the county and no record having been found that a charter had been issued either the city or county.

Two new district societies were organized—the Central District to include the counties within a thirty-five-mile radius of Farmville, and the Clinch Valley to include the counties in the Clinch River Valley. It is interesting to note that the Medical Women of Virginia have also organized with a membership of about twenty-five.

Two members reported suits for alleged civil malpractice. Only one of these asked for the assistance given by the State Society but later wrote that he would not need it as the case had been dropped.

Terms of five councilors expire at this meeting—Drs. Martin and Trout from the State-at-Large, and those for the First, Third and Tenth Districts. The Third District reports the nomination of Dr. Lawrence T. Price, of Richmond, as its councilor.

Several applications for membership in the State Society have been received from doctors residing

in counties in which there are no component societies.

During the year, we found in the office some papers which were evidently gathered in connection with a Medical and Surgical history of Virginia. We suggest that a committee be appointed to look over these and decide what disposition shall be made of them.

Though our membership is slightly smaller than last year at this time, we feel that there is a greater interest on the part of members generally in the welfare of the Society and take this occasion to thank officers and members for their constant cooperation.

Financial Report of Secretary-Treasurer for 1925.

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS FOR THE VIRGINIA MEDICAL MONTHLY AND THE MEDICAL SOCIETY OF VIRGINIA, FOR THE YEAR ENDING DECEMBER 31, 1925.

Cash in bank, January 1, 1925		$4,432.62
Total receipts, January 1-December 31, 1925	$17,136.21	
Total disbursements, January 1-December 31, 1925	14,009.16	3,127.05
Total on hand, December 31, 1925		$7,559.67

RECEIPTS

Virginia Medical Monthly		
Advertising	$7,353.38	
Subscriptions (non-members)	225.55	
Subscriptions (members at $2 each)	3,490.00	
Interest on bank balances	98.51	
Sundries	332.95	
		$11,500.39
Medical Society of Virginia		
Dues less amount for journal and legal defense	$3,490.00	
$1 per member for legal defense	1,749.00	
Interest on bank balances	98.51	
Sundries	298.31	
		5,635.82
		$17,136.21

DISBURSEMENTS

Virginia Medical Monthly		
Preparation of Journal	$7,422.79	
Salaries	2,000.01	
Postage	344.35	
Sundries	392.85	
		$10,160.00
Medical Society of Virginia		
Salaries	$1,999.99	
Postage	296.20	
Sundries	1,335.36	
Legal Defense	217.61	
		3,849.16
		14,009.16
Balance from 1925 receipts and disbursements		$ 3,127.05
Brought forward		4,432.62
Total balance in bank, December 31, 1925		$ 7,559.67
Available for legal defense	$4,908.14	
Available for operating expenses	2,651.53	
		$7,559.67

AGNES V. EDWARDS,
Secretary-Treasurer.

Motion was made that these reports be received and filed.

The report of the Executive Council was next read by its clerk, Dr. Walter B. Martin.

Minutes of the Meeting of the Executive Council of the Medical Society of Virginia.

The Executive Council met in Richmond, Va., February 13, 1926. The meeting was called to order by the chairman, Dr. A. L. Gray. The following members were present in addition to the chairman and the president: Dr. H. H. Trout, Dr. J. S. Davis, Dr. C. P. Jones, Dr. W. D. Kendig, Dr. I. C. Harrison, Dr. T. A. Kirk, Dr. C. B. Bowyer and Dr. W. B. Martin. Dr. M. T. McCulloch was present in the place of Dr. P. K. Graybill.

On motion of Dr. Trout, Tuesday, October 12th, was selected as the opening date of the State meeting.

On motion of Dr. C. P. Jones, Dr. J. H. Ayres was unanimously elected to fill the position on the State Examining Board from the First District.

The Chairman, Dr. Gray, reported a special meeting of the Legislative Committee in the fight against the proposed Chiropractic Bill. Dr. Trout moved that an appropriation, not to exceed six hundred dollars, be made to the Legislative Committee to meet the expenses incident to fighting the above bill. This was amended to provide that an itemized statement of the expenses be approved by a committee of the council members composed of the present chairman of the Council, President of the Society and the Secretary of the Council. Carried.

A committee composed of Dr. A. G. Brown, Chairman, Dr. Paulus Irving and Dr. J. Allison Hodges, was appointed to consider the erection of a suitable monument for the grave of Dr. J. P. Mettauer.

A committee of three, composed of Dr. E. L. Kendig, Dr. C. R. Grandy and Dr. F. H. Smith, was appointed to revise the Constitution and By-Laws.

A report from the auditing committee, Drs. McCulloch and Martin, was received and approved by the Council.

A motion was made and carried that the bond carried by the Secretary, Miss Edwards, and the insurance policy on the office fixtures, be turned over to the Chairman of the Council for safe-keeping.

On motion of Dr. Kendig, it was decided that the revised Constitution and By-Laws should be published in the VIRGINIA MEDICAL MONTHLY prior to the state meeting in October, 1926.

It was moved by Dr. Jones that a committee of three be appointed to invest the surplus funds of the Society. Motion carried. The committee consisted of Drs. Gray, Harris and Martin.

A letter was received from Dr. Southgate Leigh with the request for suggestions of matters to be brought up before the meeting of the American Medical Association. The Secretary was instructed to draft a suitable reply.

A letter was read from the Lumberman's Mutual Casualty Company in reference to physicians' liability insurance. No action was taken in this matter, pending further information to be obtained by the Secretary, Miss Edwards.

It was moved by Dr. Trout that the Publication Committee be commended for its action in the recent case of plagiarism in the VIRGINIA MEDICAL MONTHLY, and a letter be written congratulating them on the action. Motion carried.

A letter was received from the Roanoke Academy of Medicine asking for ruling of the Council as to the advisability of advertising in the lay papers, this advertising to be carried out along the lines used in Tulsa, Oklahoma, and of the general character as that backed by the Texas State Medical Association. After considerable discussion the question was

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laid on the table until the next meeting of the Council.

On motion of Dr. Jones, the Chairman of the Council was authorized to issue charters to the county societies in the interim between meetings of the Council, subject to approval at subsequent Council meetings.

A communication was received from the Chicago Medical Society in reference to the propriety of appointing graduates who had received the degree of Doctor of Public Health, but were not graduates in medicine to positions that place them in charge of local health departments. After considerable discussion this question was also laid on the table until the next meeting of the Council.

It was moved and carried that the actual necessary expenses of the Councilors incident to attendance at this meeting of the Council be paid from the funds of the State Society.

Meeting adjourned.

WALTER B. MARTIN, *Clerk.*

This report was ordered to be received and filed.

Dr. Southgate Leigh, one of Virginia's delegates to the American Medical Association, gave a most interesting report of the Dallas meeting.

Report of Delegates to the American Medical Association.

The officers of the American Medical Association, at the Dallas meeting, realizing the enormous amount of work that the Association is doing, the great influence that it is exerting for the good of the profession and for humanity, and realizing how little the membership really knows of its productive efforts, made a special request of the delegates from the various State branches, to make the most comprehensive possible report at their annual meetings.

The task is a difficult one, and the time allotted to us too short. However, we shall attempt a brief resume of the various reports presented and of the action of the important committees.

Quoting from the address of the Speaker of the House:

"What the past year has wrought is clearly set forth in the report of the Board of Trustees. A delegate fails in his duty if he has not read this report. He doubly fails if he neglects to acquaint his State Society with these reports of their parent national organization and neglects thereby to obtain whole-hearted interest and support in his state for the work that is being accomplished. Your speaker is deeply impressed by the possibilities that can be made to result from the activities we are engaged in if our entire profession will but become actively concerned with them.

"May I not urge on you that as you return to your state society you will avail yourself of the opportunity and devote time and effort in securing an increasing degree of interest and extended sustained support to these activities. Surely we can no longer stand by in placid attitude when the opportunity is ours to a greater extent than ever before, to set forth these ideals and aims of the medical profession.

"As an Association, as units forming our federacy and as individuals, our professional and personal responsibility is divided into two general divisions: the pursuit of scientific study and research and the enhancing of our personal capabilities as physicians to apply these proved principles in the prevention and treatment of disease and, second, the education of the public as to the truths of scientific medicine." * * *

"It devolves on state and county units to pursue vigilantly a program of scientific activity that will enable its members to remain abreast of scientific progress and reflect that progress in their daily contact with their patients. They must guard against the mediocre, the obsolete, and bring up to standard the professional knowledge and work of their members. We lay ourselves open to justified criticism if organized medicine condones, by inactivity, the deficiencies and vagaries of its members. My earnest desire in this is for greater, well planned and concentrated instruction of members in order that they may receive sustained education abreast of the progress of our science. A higher, much to be desired standard and type of practice will then be evolved. This I hold to be an outstanding obligation of our county units—an obligation that is apparently neglected and to which state societies should devote thought and action. Your speaker recommends that this House direct the Secretary to refer our state societies to this problem." * * *

"Our science has made wonderful strides. We are able not only to prevent but also to cure many of the physical ills that beset mankind. We can extend the span of life and enhance it. But of what avail is this ability if we fail to disseminate this knowledge to the public? The public has evidenced an increasing eagerness to receive facts regarding scientific medicine from sources that are authoritative. Our federacy is that source and agency. Our responsibility is an outstanding one. The duty is ours to expend greater time and effort in imparting this knowledge. To do so, we must with concerted, well thought action, disseminate these scientific facts and refute the vagaries and fallacies of those who have, and are holding forth as pseudoscientists or as cultists and scientists on theories and principles that rest on a factless premise. By the imparting of the knowledge that we hold, by setting forth that which has been proved, we render a dual service to humankind in conserving physical health and relieving them of human ills and in exposing those who are posing as possessed of ability to treat disease by means and vagaries that are scientifically valueless."

Quoting from the address of President Haggard, before the House:

"Among the many activities of the Association during the last year, a persistent effort has been made to popularize the periodic health examination of the apparently healthy." * * *

"It would add not only years to life, but life to years. It would in all reality increase the scope of each individual's life by detecting the insidious maladies of all types in their incipience. The skill of the physician could be utilized in the anticipatory prevention of the many maladies whose early recognition makes for cure." * * *

"It is the insidious diseases of the great organs, the degenerative diseases, that especially go undetected unless an examination, even in apparent health, discloses their first evidences.

"The greatest field of the physician, which has been so long neglected, is the health guidance of his clientele. His judgment, wisdom, experience and knowledge can be massed in an attack against all forms of abnormal and unhealthful living, bad eating and environmental, and occupational disorders." * * *

"The publication of the 'Manual of Suggestions for the Conduct of Periodic Examinations of Apparently Healthy Persons,' which has been issued by the Association under the direction of the Bureau of Health and Public Instruction, is very complete and helpful and has been very well received by the profession. It should be in the hands of every physician in the United States." * * *

"It would seem, therefore, that on the county so-

ciety as a unit should be devolved the responsibility of giving every one of its members the information and the facilities, and further, through its cooperation, to bring the matter to the attention of every individual in the community."

Following these remarks, Dr. Haggard presented in detail his suggestions for carrying out the work in a systematic way, including special meetings of the county societies, special working committees and educational work through the press and lay organizations. (These suggestions appear in the *Department of Analyses, Selections*, etc., in current issue of the MONTHLY, page 542.)

Your delegates would suggest that the plan as outlined by Dr. Haggard be published in full in the Journal and that appropriate action be taken by the Council and House of Delegates.

The circulation and influence of the health journal, *"Hygeia,"* has greatly extended and it is particularly gratifying to know that in the past year its annual loss has been reduced from $42,000.00 to $5,000.00 in round figures.

Virginia has 489 subscribers, of which 194 are doctors, and leads the Southern States with the exception of Missouri, 1,104, and Texas, 1,072. It would be a paying investment for every doctor to subscribe and keep several copies at all times on his waiting room table.

The large subscription list in Texas was due chiefly to the efforts of the Woman's Auxiliary, which organization is conducting a booth at this meeting and is prepared to take subscriptions from every doctor attending the meeting. *"Hygeia"* fills a long felt want for the profession, in that it tells the true story of medicine in language so simple that the public in general can and does appreciate it fully.

The House, acting on the report of the Board of Trustees, strongly disapproved the proposed bills in Congress granting hospitalization to all World War veterans for disabilities having no connection whatever with their service in the War.

A special committee of the Association, appointed by the Trustees, has had several conferences with General Andrews of the prohibition department with a view to changing the arbitrary rules so as to permit reputable physicians to prescribe alcoholic liquors where needed in sickness and in whatever quantities may be necessary. The General was reported as being favorable to the suggestion which will probably be presented to the next Congress.

Recognizing the growing importance of Physiotherapy, properly conducted in a reasonable and ethical way, this matter was placed in the hands of a special council with membership representing Physicists, Clinicians, Physiologists, and Pathologists.

"It is believed that through this council a great deal can be accomplished for the standardization of physical therapeutic methods and appliances, and that the interests of the medical profession and of the public will be safeguarded and promoted. It is unfortunately true that physical therapy has fallen largely into the hands of enthusiasts and faddists and, to an undue extent, into the hands of those who are not far removed from the status of quacks. More and more, however, qualified physicians, following the lead of a few conservative investigators and practitioners, are turning their attention to this field and are persistently striving to put physical therapeutics on a rational, scientific basis. The character of the men who compose the newly established Council is a guarantee to the medical profession and to the public that the work of this council will be done fairly, fearlessly, and in a thoroughly scientific manner."

The Secretary, Dr. West, stated that the Association now has 91,792 members, the largest in its history, 56,188 of these being Fellows.

Notwithstanding its length, we are presenting in full his statement regarding the County Societies:

"The county medical society is the fundamental unit in our scheme of organization. More than that, it is the essential factor in the record, whether of progress or otherwise, that may be made by medical organization as a whole. A constituent state association cannot permanently succeed, no matter how its own separate machinery may be developed, unless its component county societies are meeting their own responsibilities with reasonable efficiency. No more can the Americal Medical Association fully succeed unless its basic units are efficient. There are those things that must be done, and done well, by the county society for itself and for organized medicine as a whole. In building up the state association or the American Medical Association, great care should be taken to see to it that nothing is done to weaken the county society, whether by taking over the work it should do for itself or by any other method.

"As has been stated in reports theretofore submitted, there are, as is clearly shown by official reports from their own officers, too many county societies remaining stagnant. In many instances, persistent effort has been made to stimulate them into action without any measurable success. It might be worth while for the state association to undertake a careful survey, each within its own jurisdiction, with a view to making a final effort toward bringing every chartered component unit as now constituted into useful activity, or failing that, to effect organization anew by the combination of two or more counties into one society. This plan has already been tried to good advantage in some instances.

"Turning to a brighter side of the general picture, it is extremely gratifying to report that many county societies in all sections of the country are doing more and better work than ever before. Among these are some with relatively small membership. Their programs of work, scientific and otherwise, are prepared with care and carried out with inspiring enthusiasm. Such societies confer real benefits on their members and exert a most helpful influence in their own several communities. They are the strength of medical organization in the United States.

"It is easily apparent to any who will examine the facts that the scientific work of constituent associations and of active component county societies is showing constant improvement—in both quantity and quality. More and more the scientific programs are being made really purposeful. This appears to be largely due to the fact that the compilation of these programs is made the duty of qualified committees, elected officers, or otherwise. The programs are planned far enough ahead to give contributors ample time for the preparation of well thought out papers and discussions."

The Council on Medical Education and Hospitals reported that the number of medical schools is still held down to eighty, and that there has been an increase in Post-Graduate Schools to eighty-six. The number of the latter ten years ago was only twenty.

The average age at graduation is now 26.8.

Some progress has been made in the effort to cut down the age by shortening the preliminary school and college time and even the medical course itself.

A resolution presented to the House by one of your delegates urging that medical students be credited with courses taken during the Summer months, was approved and ordered sent to the various colleges for their consideration.

"The Council has established a ruling that no hospital will be considered as approved if other than

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reputable graduates of acceptable medical schools are permitted to attend patients in them or are admitted to their staffs."

A special committee on nursing and nurse education was appointed for the purpose of a thorough investigation and recommendations, many complaints having come to the Association in regard to the difficulty in obtaining nurses for families of moderate means.

Regarding the title "Doctor," an interesting resolution was passed by the House, the last paragraph of which read as follows:

"Resolved, that it is the sense of the American Medical Association that, for the protection of the public, the title 'Doctor' in a medical sense be restricted to doctors of medicine and doctors of dental surgery."

Dr. Jabez Jackson, an eminent surgeon of Kansas City, was made President-Elect, and Washington selected for the meeting place next Spring.

In this connection your delegates would call attention to the fact that both at the California and Texas meetings, the local profession turned out in very large numbers, notwithstanding the great distance many of them had to travel.

The attendance from Virginia has never been large, though several meetings have been held at nearby places in the East. It is earnestly to be hoped that since Washington is so easily accessible by motor, train and boat, the attendance from Virginia shall be greatly increased. Nothing would do our State society more good, and close attendance on the meetings would be a great inspiration to the individual doctors of Virginia.

Your delegates would urge that vigorous steps be taken to bring about a record attendance.

The people of Dallas treated the Association royally, with a barbecue for 10,000 people, numbers of entertainments of various kinds, and a wonderful spirit of cordiality and good will.

The hotel facilities were ample and excellent, and transportation most convenient.

Our deepest regret was that so few were present from old Virginia.

SOUTHGATE LEIGH
S. S. GALE
Delegates.

This report was considered so important, that Dr. George J. Tompkins made a motion, seconded by Dr. C. P. Jones, and carried, that the report be published in full in the next issue of the State Medical Journal.

The next business in order was the reports of the Standing Committees.

MEMBERSHIP: The chairman, Dr. J. A. White, not being present, this report was deferred for a future meeting.

JUDICIARY: The chariman, Dr. William F. Drewry, stated that they had had no meeting during the year and had nothing to report.

Dr. Walter Cox, councilor from the Seventh District, stated that a member of the State Society who had been expelled from the Medical Association of the Valley of Virginia, was on the program to present a paper. He wished to know what action the House would take with regard to this member. It was found that this doctor resided in a county in which there was no society which was a component unit of the Medical Society of Virginia. After a great deal of discussion in which was emphasized the need of county organization to judge of the qualifications of its membership, it was moved by Dr. M. L. Anderson, with an amendment by Dr. I. C. Harrison, that this case be presented at once to the Judiciary Committee for investigation, in accordance with the regulations prescribed in the By-Laws. Seconded and carried.

LEGISLATIVE: Dr. H. U. Stephenson, chairman, stated that the only report he had to make was covered by the paper he had read on the preceding night, in which he emphasized the necessity of having a board composed of men of the various sciences appear before Legislature in the interest of upholding the higher standards of medical education in Virginia.

Dr. J. A. Hodges doubted the feasibility of such a plan and wished to know what sciences would be represented on the board recommended by Dr. Stephenson. He suggested the formation of a committee of ten men, one doctor from each Congressional District, to revise and study the Medical Practice Art, and to make any changes that might be deemed advisable. He stated that what we want is a uniform law for those practising medicine. In further discussion of this subject, Dr. L. T. Price offered a motion, which was seconded by Dr. Hodges, that a committee of three be appointed to consider the contents of Dr. Stephenson's and Dr. Hodges' papers, and to report at a special meeting at eight o'clock that night, at which time might be brought up any other views of importance.

In accordance with the above resolution, the chairman appointed Drs. L. T. Price, P. St. L. Moncure and T. S. Hening to make this investigation and report at a meeting that evening.

PUBLICATION—Dr. A. G. Brown, chairman, stated that his report was somewhat long and principally a resume of the work done by the Publication Committee. He suggested that, with the approval of the House, it might be received and placed on file for publication in the minutes. It was moved and seconded that this be done. Carried.

Report of Publication Committee.

In submitting a report to the House of Delegates the Publication Committee can only recite events that are well known to members of the Society. The work of the committee is more or less routine in nature. It is routine in that it attempts to conduct your monthly magazine or journal, and to provide a program for the annual meetings of the society. The excellent office management of the affairs of the VIRGINIA MEDICAL MONTHLY by Miss Agnes Edwards renders the problems and difficulties of the medical journal much less difficult for the committee. Indeed, I feel I voice the sense of the committee, in saying that Miss Edwards is quite indispensable to the VIRGINIA MEDICAL MONTHLY: her efficient service in the mechanical and technical operation of the magazine is of a high order, and, virtually relieves the committee of responsibilities which might otherwise be unassumable by them.

The Committee on Publication holds two important meetings each year for the purpose of getting out the program of the annual session.

1. In the late spring or early summer, the question of subject for a symposium is canvassed and selected, sub-divisions agreed upon, and readers invited.

2. In the late summer, complying with the By-laws, the committee meets to arrange the program for the various meetings of the annual session. It is difficult to shape the program for the various morning, afternoon and night sessions.

This is only difficult, however, because of the effort to arrange the subjects in some order and correlation, and, at the same time, to give each member as good a place on the program as possible. A so-called good place, in point of time, is attainable to all, if the membership of the society would only follow the practice of sitting the program through,

and, of coming in promptly at the appointed hour. The Society membership should be urged to realize the importance, so far as possible, of giving members who have prepared papers the favor of prompt attendance upon the sessions. It is difficult under the present By-Laws to get fifty papers, of twenty minutes' duration, into the program (together with social functions and business sessions and the special order of the symposium) without carrying a considerable number of papers over to Friday morning session.

So it is the opinion of the Program Committee that the time of the papers should be reduced to fifteen minutes, the meetings should be earlier in the morning, and the social functions should be fixed so as not to use the session hours.

The committee has had, within the last two years two special meetings for the purpose of considering and acting upon charges of plagiarism. You are, no doubt, familiar with these unpleasant instances and I shall not review them here. I only mention them to emphasize our purpose, which we know receives your approval, to keep the publication of this society on the highest standards of ethical and moral plan, endeavoring always, as a State publication, to make it merit favorable criticism for its literary and scientific matter. The latter qualities are, of course, relative and can be attained the better only through application, effort, and scientific purpose.

In the preparation of papers, it seems wise for authors to cite the publications used in getting together the material of the paper; to use quotation marks where words of the authors are employed, to give credit to previous authors when thoughts and words are used. This will do much to prevent the unfortunate acts of plagiarism which we were compelled to expose in the VIRGINIA MEDICAL MONTHLY. It is indeed a pleasure to say, as is known, that no member of this society was implicated in either of these infractions of the code of laws governing responsible authorship.

The editorial efforts of the VIRGINIA MEDICAL MONTHLY have been directed to the policy of attempting to bring to the reader an interpretation of medical and scientific work of the day as found in current literature. It was thought that discussions in brief of scientific subjects were more beneficial than an attempt to discuss secular or professional matters or political or economic subjects. It was with this point of view that our editorials were presented.

Before closing this report, as chairman of Publication Committee and Editor, I wish to express the deep appreciation felt for the high quality of work rendered the State Society by Miss Agnes Edwards, in the work on the journal. In this statement I feel sure I voice the feeling of the other members of this committee.

Respectfully submitted,

ALEXANDER G. BROWN, JR.,
Chairman, Publication Committee.

Under the heading of Special Committees, the following reports were called:

HOSPITALS: No report. It was announced at a later meeting that a letter had been received from Dr. Gale, which showed that the committee was active, though they had no special report to make at this time.

NECROLOGICAL: It was stated that the names of the thirty-six members whose deaths had been reported since the 1925 meeting, were read at the opening session on Tuesday. The list is as follows:

List of Members of the Medical Society of Virginia Whose Deaths Have Been Reported Since 1925 Meeting.

Dr. Lanier Dunn Pole, Hot Springs, Va.
Dr. James Barbour Boldridge, Winston, Va.
Dr. Andrew Jefferson Nelson, Seattle, Wash.
Dr. Edwin M. Newsom, Newport News, Va.
Dr. Thomas Dunn Hutton, Glade Spring, Va.
Dr. Stephen Harnsberger, Warrenton, Va.
Dr. William Morgan Smith, Berryville, Va.
Dr. Charles Howard Lewis, Richmond, Va.
Dr. James Bassett Rawlings, Lawrenceville, Va.
Dr. John William Holmes, Pulaski, Va.
Dr. John Randolph, Arvonia, Va.
Dr. George Grattan Painter, Pulaski, Va.
Dr. Philip Turner Southall, Amelia, Va.
Dr. Lawrence Ingram, Richmond, Va.
Dr. George Ross, Richmond, Va.
Dr. Emory Hale Connelly, Alberta, Va.
Dr. Harry Gilmore Carter, Burkeville, Va.
Dr. Lemuel Cornich Shepherd, Norfolk, Va.
Dr. George Burley Martin, Oteen, N. C.
Dr. William Edward Anderson, Farmville, Va.
Dr. Robert Scott Spilman, Lexington, Va.
Dr. Marshall Price Jones, Churchville, Va.
Dr. John E. Coles, Alberene, Va.
Dr. Benjamin W. Cohn, Norfolk, Va.
Dr. Reading Lloyd Williams, Norfolk, Va.
Dr. Powhatan Moncure, Bealeton, Va.
Dr. Ludwig Mendelsohn, Norfolk, Va.
Dr. Burnley Lankford, Norfolk, Va.
Dr. William Clayton Orr, Leesburg, Va.
Dr. Wirt Peebles Marks, Claremont, Va.
Dr. William Sterling Woody, Hopewell, Va.
Dr. John Bernard Halligan, North Emporia, Va.
Dr. Robert Eugene Wine, Nokesville, Va.
Dr. William Joseph Jones, Crozet, Va.
Dr. Morand Lee Stallard, Appalachia, Va.
Dr. Humphrey Singleton Belt, South Boston, Va.

LIBRARY: Dr. I. C. Harrison, chairman, stated that his report was practically the same as last year, except that Miss Edwards had suggested that some of the older volumes might be given to the State Library to make room for new books which might be received. It was moved, seconded and carried that this report be received and filed.

COOPERATION WITH STATE DEPARTMENT OF HEALTH IN CHILD HYGIENE WORK: No report.

COOPERATION WITH STATE NURSES' ASSOCIATION: Dr. J. A. Hodges stated that he had no report to make at this time, but would likely adopt suggestions to be reported at a later meeting.

CANCER: No report.

PUBLIC HEALTH AND EDUCATION: Dr. R. K. Flannagan, chairman, presented a report and offered two resolutions, one on a public information committee, and the other on periodical examination.

Report of the Public Health and Education Committee, Medical Society of Virginia.

The report of your committee last year confined itself solely to the public health aspects of its duties and resulted in the adoption of a resolution reiterating the Society's adherence to the principles of preventive medicine and urging the establishment by cities, towns and counties of whole-time public health services and further urging the local societies to appoint public health committees to study local public health needs and advise as to how such needs may be met. This action gives your committee a point of departure in the public health field which has been largely lacking to the Society since the reorganization of the State Board of Health in 1908.

In the judgment of your committee the medical profession is an indispensable adjunct to the proper

administration of public health work and should continue to actively interest itself in the development of this paramountly important community service. It is recognized, however, that a mutual understanding between the State Board of Health and the organized medical profession of any community is essential to the success of any proposed public health development, and it is the view of the committee that no measures should be undertaken by the State Board of Health that may be reasonably regarded as detrimental to the true interests of the physician.

Education

It seems to the committee that in order to carry out the implications contained in the word "Education" in its designation, that it must as in the case of the Public Health phase of its duty, establish with the local societies a proper point of departure from which to achieve results. The physician as an individual and a business man is at a great disadvantage with other professions and occupations. He has no such open forum as the courts furnish to the lawyers for the display of his talents. He cannot advertise himself and his abilities in the public prints as do merchants, manufacturers, pathists and cultists of all sorts. He must look therefore to his individual contacts for the establishment of his reputation and his fortunes. The general public, in the main uninformed in scientific matters, incapable of accurate thinking and accustomed to buying the most blatantly advertised article, is under a great handicap in the choice of medical advice and treatment, since the quack, patent medicine man and cultist blare at him on all sides the "supreme value" of their wares. To meet this situation, your committee advises that each affiliated society be asked to consider the advisability of the appointment of a standing committee on public information whose duty it would be to furnish to the local papers from time to time medical information from authoritative sources as an offset to the pseudo-scientific nonsense and quackery so injuriously promulgated through certain types of magazines and through the advertising columns of the press.

Public Health

Specifically in the preventive medicine field your committee wishes to call attention of the Society to the high death rate among men and women from forty to sixty years of age and to the responsibility resting upon the medical profession to devise plans and aid in every practicable way well-considered methods for prolonging the life of citizens whose health is being undermined by lack of knowledge so readily available from the regular medical profession.

As a start in this direction the committee recommends that affiliated societies as far as practicable be urged after the manner of the Kings County (New York) Medical Society to organize group clinics, made up of physicians representing the various divisions of medical practice in their locality, for the detailed examination periodically of its own members according to accepted standards in order:

1. That the physical well-being of the local profession be assured.

2. That as large a number as possible of the physicians in the Society shall become thoroughly familiar with a systematic and uniform technique of the most approved method of physical examination.

The experience gained by the conduct of clinics of this character will be of utmost value in enabling the Society to formulate a wide-spread program for securing the general adoption by the public of periodic examinations by the family physician.

Respectfully submitted,

Dr. Roy K. Flannagan, *Chairman.*
Dr. J. H. Hiden,
Dr. C. B. Bowyer,
Dr. James Morrison,
Committee.

The following resolutions are offered by the committee and are designed to put into effect the foregoing suggestions recommended by the Public Health and Education Committee:

Resolutions on Public Information Committee

Whereas, many magazines and periodicals as well as advertising columns of both the religious and secular press are filled with misleading statements concerning the ailments of human kind and alleged means of cure, and,

Whereas, the body of science the regular physician represents makes him custodian of knowledge in disproof of much of this dangerous and purely commercial propaganda, and since such knowledge should be available in greater degree to the public than at present, therefore be it

Resolved, That the Medical Society of Virginia hereby urges upon affiliated societies the advisability of appointing a standing committee on public information composed of carefully chosen members who in simple language in the name of the Society will furnish from time to time to the local press medical and public health information of an authoritative character.

Resolutions on Periodical Examination

Whereas, the advisability of periodic medical examinations of apparently healthy individuals is universally recognized as a highly desirable procedure for men and women past forty years of age and if universally adopted would prevent the loss yearly of great numbers of the most valuable members of society, and,

Whereas, periodic medical examinations have not in any general way been adopted by the public as a routine measure, be it

Resolved, That the Medical Society of Virginia encourage the affiliated societies to organize clinical units from among their membership which will first examine according to modern methods of procedure their own membership or such of them as will avail themselves of the privilege, to the end that data may be secured and plans may be formulated to eventually furnish the public generally, at a cost within reach of all, the benefit of such service.

Dr. A. L. Gray stated that these two resolutions were so pertinent and valuable that he would like to move their adoption. This was seconded and carried.

Walter Reed Commission: Dr. E. C. S. Taliaferro, chairman, reported that his committee had been very active in its work and had secured the promise of co-operation from a number of societies. He stated that the Commission has an option on the Walter Reed home in Gloucester County, Virginia, and he hopes they be in position to purchase this shortly. The plan of the Commission is to have individual subscriptions of small amounts, rather than that a few men should purchase the place, which should be in the nature of a medical shrine. It is thought that a more definite report can be made next year.

It was moved, seconded and carried that Dr. Taliaferro's report be received and filed.

Medical Officers' Reserve Corps: No report.

The COMMITTEE ON THE MEMORIAL TO DR. J. P. METTAUER made the following report through its chairman, Dr. A. G. Brown, Jr.:

Report of Committee on Memorial to Dr. J. P. Mettauer.

A committee, composed of Dr. Paulus A. Irving, J. Allison Hodges and Alexander G. Brown, Jr., chairman, was appointed by the Executive Council of the Medical Society of Virginia, at a meeting February 13, 1926, to consider the subject of the erection of a suitable monument over the grave of Dr. John Peter Mettauer. The committee was directed to report its recommendations at this meeting.

Epitomizing a few of the salient features of the excellent address of the President, at the opening meeting of the Society, last night, John Peter Mettauer was born June 24th, 1787, and died November 22nd, 1875, at his home in Prince Edward County, Virginia, in the eighty-eighth year of his age, having practiced medicine for nearly seventy years.

He was born of a distinguished father, Dr. Francis Joseph Mettauer, who was surgeon-general and medical director in the forces of Rochambeau. After the surrender of Cornwallis, being attracted to Virginia, he settled in Prince Edward County, where John Peter Mettauer, the subject of our report, was born.

Dr. John Peter Mettauer began the practice of medicine in his native county in 1809, at the age of twenty-one years, practicing with his father. Soon, under the effect of his brilliant mind and evident skill in practice, his name became a household word in all that country and his services were sought by a large and increasing clientele. Later, through the development of his knowledge and the operation of his genius, he became distinguished as a surgeon. The originality of his work, the remarkable scope of his operative powers, and distinct success attendant upon his remarkable surgical feats, made him nationally known. The wide range of this pioneer in the domain of surgery makes one, in these days, wonder in admiration at this heroic Virginian.

But this is not all. To his skill as physician and surgeon, he added the accomplishments of an eminent teacher, and organizer and conductor of a medical school, and besides, contributed liberally with his pen to medical literature, with a style and substance of notable quality.

Over this distinguished physician's grave, as he lies in the college burying ground at Hampden-Sidney, there is no monument or marker. Your committee, therefore, begs leave to recommend that the Medical Society of Virginia, from its funds, cause to be erected a suitable marker (or monument) over the grave of this eminent physician, setting forth in appropriate phrase a statement of his distinguished service to the people of his State and Nation.

Respectfully submitted,

ALEXANDER G. BROWN, JR.,
PAULUS A. IRVING,
J. ALLISON HODGES,
Committee.

It was moved, seconded and carried that this report be adopted and filed.

The COMMITTEE ON REVISION OF THE CONSTITUTION AND BY-LAWS was called for its report. Dr. E. C. S. Taliaferro moved that, as a discussion of this would occupy some time, the report be deferred until Thursday morning, at 10 o'clock, by special order. This was seconded and carried.

The chairman of the committee, Dr. E. L. Kendig, stated that the proposed draft was published in the August issue of the VIRGINIA MEDICAL MONTHLY, reprints of which were available, and suggested that each member secure a copy and be prepared to present any amendments in writing at the special meeting of the House, at which time the articles and sections should be taken up in regular order.

It was stated that the secretary had several communications which should have some attention. These were referred to a committee of three—Dr. Isaac Peirce, chairman, and Drs. P. E. Tucker and William Meyer—for recommendations.

There being no further business, the House adjourned to hold a special meeting that evening, at 8 P. M.

EXECUTIVE COUNCIL

The Executive Council of the Medical Society of Virginia held its regular meeting in Norfolk, Virginia, October 13th, 1926, at 5 P. M.

The meeting was called to order by the chairman, Dr. A. L. Gray. All members were present or represented by alternates. Dr. O. R. Yates, Suffolk, was alternate for Dr. J. Gates Goode; Dr. A. T. Finch, for Dr. W. D. Kendig; Dr. J. D. Willis, for Dr. Allen Kirk, and Dr. M. T. McCulloch for Dr. P. K. Graybill.

As some of the members had to leave before the close of the meeting, it was moved and seconded that the nomination of officers be taken up out of order. The nomination for President being called for, Dr. I. C. Harrison placed the name of Dr. J. Shelton Horsley before the Council. This was seconded by Dr. Trout. There were no further nominations before the Council, and, on motion, the Secretary was instructed to cast the unanimous vote of the Council for Dr. Horsley.

The following were nominated unanimously for the following offices: Dr. J. Warren White, Norfolk, first vice-president; Dr. L. T. Royster, University, second vice-president; Dr. P. W. Boyd, Winchester, third vice-president; Miss Agnes Edwards, Richmond, secretary-treasurer.

The following delegates to the American Medical Association were nominated for a period of two years: Dr. Stuart McGuire, Richmond; Dr. J. W. Preston, Roanoke. Alternates: Dr. E. C. S. Taliaferro, Norfolk; Dr. E. G. Williams, Richmond.

The standing committees were taken up separately. Dr. P. W. Miles was nominated to take the place of Dr. Lewis Holliday on the Membership Committee. This change was made in order to provide for representation from each district on this committee. The present members of the Legislative, Judiciary and Publication Committee were re-nominated.

Two vacancies occurred on the Council from the State-at-Large, and Dr. George J. Tompkins, of Lynchburg, and Dr. E. C. S. Taliaferro, of Norfolk, were nominated for these.

The question of appropriating funds for the erection of a suitable monument to mark the grave of Dr. Mettauer having been referred to the Executive Council, Dr. Harrison moved that a sum not to exceed $300.00 be expended for such a monument. This motion was seconded and carried. The same committee was appointed to have charge of the selection of the monument as previously elected.

The question of advertising in the lay press along the lines used in Tulsa, Okla., and of the general character as that backed by the Texas State Medical Association, having been previously communicated to the Council by a member of the Roanoke Academy of Medicine, was taken up in discussion. On motion duly seconded, it was decided that the Council at present does not approve of this plan.

The communication previously received from the Chicago Medical Society and also letter received from the Louisiana State Medical Society in reference to

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the propriety of appointing graduates who had received the degree of Doctor of Public Health, but were not graduates of medicine, to positions that placed them in charge of local health departments were taken up and considered. On motion, duly seconded, it was recommended that this question be referred to our delegates to the American Medical Association, with the request that they take this matter up with the proper committee of the House of Delegates of the A. M. A.

The Council having before it no invitations for the next annual meeting of the Society, it was moved and seconded that decision of this point be reserved until the meeting of the House of Delegates at 8 P. M., this date.

There being no further business before the meeting, motion to adjourn was made and carried.

HOUSE OF DELEGATES

The House of Delegates held a special meeting at 8 P. M., October 13, Dr. T. D. Jones, vice-president, presiding.

Dr. William F. Drewry, chairman of the Judiciary Committee, reported that he was unable to get a meeting of his committee. He also reported that he had considered the matter of Dr. A. W. Graves being on the program and found nothing in the By-Laws to prevent his appearing as scheduled.

The committee appointed at the morning session, composed of Dr. L. T. Price, chairman, and Drs. P. St. L. Moncure and T. S. Hening, presented the following report on the recommendations contained in the papers of Drs. J. A. Hodges and H. U. Stephenson, read at the opening session:

Your committee respectfully submits the following recommendations:

1. That the Medical Society of Virginia re-affirms its approval and adherence to the medical laws of this State (chapter 68, regulating the practice of medicine), and pledges its continued professional support in their administration.

2. That it discountenances at the present time any addition to the membership of the State Medical Examining Board.

3. That it memorializes the House of Delegates at this session to consider, and if possible, formulate some definite plan for dealing with the medico-legislative problem, as follows:

That for this purpose, it offers for its consideration the following plan: The appointment by the Chairman of the Executive Council of the State Society a Professional Relations Committee, consisting of three physicians resident in each councilor district, who shall have charge locally, with the Chairman of the Executive Council and the Chairman of the Legislative Committee of the Society of all medico-legislative problems that may arise in such districts.

That these local committees in each Councilor district shall have the right to organize according to their own preferences, and shall have the authority to associate with themselves such local medical, educational, religious, health and lay associations, especially the Woman's Auxiliary, as they may deem proper, the local chairman keeping the State Councilor chairman fully informed, and he, in turn to keep in contact with the State Legislative Chairman in all matters relating to medical legislation. In brief, the dominant purpose in all this is to develop direct contacts through associated and helpful agencies in the home districts that will educate the lawmakers and the public to secure the enactment of constructive legislation designed for the common good, and these local committees shall endeavor to obtain an expression of the views of the several candidates for nomination to the Senate and Legislature of Virginia, with regard to supporting the present Medical Practice Act.

Respectfully submitted,

LAWRENCE T. PRICE, *Chairman*,
P. S. MONCURE,
THOS. S. HENING.

It was moved and seconded that this report be adopted. Carried.

Dr. J. A. Hodges then made the following motion, which was seconded and carried:

Resolved, That Dr. J. W. Preston, secretary of the State Board of Medical Examiners, with ten associates whom he may select, together with the chairman of the Legislative Committee of the State Society, be authorized to submit at the next annual meeting of the House of Delegates, or, if necessary, to the Executive Council, such changes and additions to the existing medical laws of the State as they may deem wise and proper, and also name the time when these measures should be presented to the Legislature, and this committee is further authorized to spend such a sum of money as is needed, to carry out these requirements, an itemized account for the above necessary expenses to be kept and presented to the Executive Council for payment.

Following this, Dr. J. A. Hodges stated that he had been thinking over the report made at the morning session of the House by Dr. E. C. S. Taliaferro, chairman of the Walter Reed Commission, and he felt that our Society should take some very definite action to honor the memory of Dr. Walter Reed. He offered a resolution, which was seconded and adopted, that the Executive Council be asked to appropriate the $1,000.00 necessary to purchase "Belroi," the birthplace of Dr. Walter Reed, in Gloucester County, Virginia, and that the deed to the place be turned over to the Walter Reed Commission as a gift from the Medical Society of Virginia, the Commission to place a tablet stating that the house is presented to the Nation and the profession by the Medical Society of Virginia in honor of Dr. Walter Reed.

There being no further business, the House adjourned to meet at 9 A. M., Thursday morning.

EXECUTIVE COUNCIL

The Executive Council held a called meeting, Wednesday evening at 9 P. M., Dr. A. L. Gray, chairman, presiding.

Present: Drs. J. S. Davis, C. P. Jones, Israel Brown, A. T. Finch (alternate for Dr. W. D. Kendig), J. D. Willis (alternate for Dr. T. A. Kirk), I. C. Harrison, Walter Cox, and M. T. McCulloch (alternate for Dr. P. K. Graybill).

The purpose of this meeting was to take action on the resolution which was referred to it from the special meeting of the House of Delegates, that the Executive Council appropriate $1,000 to purchase "Belroi," the birthplace of Dr. Walter Reed, in Gloucester County. It was moved, seconded and carried that the $1,000 be appropriated for this purpose in accordance with the resolution adopted in the House of Delegates.

A motion was made and adopted that a telegram be sent Dr. P. B. Barringer, an ex-president of the Society, expressing regret because of his inability to attend this meeting and extending to him the good wishes of the Society.

There being no further business, the Council adjourned.

HOUSE OF DELEGATES

The House of Delegates of the Medical Society of Virginia held a regular meeting October 14, 1926, at 9 A. M., the second vice-president, Dr. Geo. J. Tompkins presiding.

The roll call showing a quorum, the secretary read a report of previous meetings, which with a slight correction, were ordered received and filed.

The report of the Executive Council was read, which was likewise ordered received and filed.

Dr. J. A. White, Chairman of the Membership Committee recommended that the following applicants for membership residing in counties with no or inactive Societies, be received as members:

Dr. F. W. Gearing ----------Woodstock
Dr. David W. Kelly, Jr.----------Culpeper
Dr. John L. Thornton ----------Warrenton
Dr. J. L. Blanton ----------Fieldale
Dr. E. R. Miller----------Harrisonburg
Dr. C. W. Segar----------Burkeville
Dr. A. B. Schilling--U. S. James River Fleet

Moved and seconded that his report be accepted.

The following officers are nominated and elected: Dr. J. Shelton Horsley, Richmond, President; Dr. J. Warren White, Norfolk, First Vice-President; Dr. L. T. Royster, University, Second Vice-President; Dr. P. W. Boyd, Winchester, Third Vice-President; Miss Agnes Edwards, Richmond, Secretary-Treasurer.

Delegates to the American Medical Association for a term of two years: Dr. Stuart McGuire, Richmond; Dr. J. W. Preston, Roanoke. Dr. Southgate Leigh, Norfolk, and his alternate, Dr. C. C. Coleman, Richmond, elected last year for a period of two years, hold over.

Alternates to Delegates for a two-year term: Dr. E. C. S. Taliaferro, Norfolk, and Dr. E. G. Williams, Richmond.

Councilors from the State-at-Large: Dr. Geo. J. Tompkins, Lynchburg; Dr. E. C. S. Taliaferro, Norfolk; First District, Dr. Geo. J. Williams, Hilton Village; Third District, Dr. Lawrence T. Price, Richmond; Tenth District, Dr. M. T. McCulloch, Troutville.

There was added a new member to the Membership Committee, Dr. P. W. Miles, Danville. No changes were made in the personnel of the Judiciary, Legislative and Publication Committees.

It was announced that no invitation had been received for next year's meeting.

A resolution was adopted to expend a sum not to exceed $300.00 to place a suitable marker over the grave of Dr. J. P. Mettauer, and that the committee which recommended this action, be continued to complete the work.

A resolution was adopted that the Medical Society of Virginia appropriate $1,000.00 for the purpose of buying "Belroi," the birthplace of Dr. Walter Reed, in Gloucester County, Virginia, and that the deed to the place be turned over to the Walter Reed Commission as a gift from the Medical Society of Virginia to the Commission; and that a tablet be placed by the Commission, stating that the house is presented to the Nation and the profession by the Medical Society of Virginia, in honor of Doctor Walter Reed.

The committee composed of Drs. Peirce, Tucker and Meyer, appointed for the purpose of deciding what disposition should be made of some special correspondence, presented recommendations with regard to same and the Secretary of the Society was instructed to answer each letter as indicated.

The Committee on the Proposed Constitution and By-Laws submitted its report. It was moved that the report be received. There being a second to this, an amendment was offered that the articles be read seriatim and acted upon in order. This motion was adopted as amended.

The various articles and sections were then read: In the Constitution, Article VI (The Council), the second sentence was amended to read "The council shall consist of the President, President-elect, and one member from each Congressional District of the State, elected by the House of Delegates on nomination of the delegates from each District.

Under Article IX, of the Constitution, the following was added as the last sentence—"Automatic succession of the President-elect to the presidency may be provided for in the By-Laws."

Article X of the Constitution should read, "There shall be an annual session of the Society and the date and place of meeting shall be determined by the House of Delegates."

The following sentence was added to Article XI, Section 11, of the By-Laws, "Once a year, not later than July 1st, the secretary of each component society shall send a list of its members to the Executive Secretary of the State Society."

It was moved and seconded that this report as amended be accepted and filed.

There being no further business before the House, the meeting adjourned.

The above report was presented before the general meeting on Thursday afternoon, the 14th, at 5 P. M., by special order, and was approved as read.

Following the adoption of the report of the House of Delegates, Dr. E. L. Kendig moved that the Constitution and By-Laws, just adopted, be put into effect "*in toto*" at the end of the 1927 annual session, but that the part of the said Constitution and By-Laws providing for the election of a House of Delegates be put into effect in time for the election of a House of Delegates for the 1927 annual session, and that all officers, delegates to the American Medical Association, and committeemen, be selected at the 1927 annual session under the provisions of said Constitution and By-Laws. Adopted.

At a called meeting of the Executive Council, this afternoon, Dr. L. T. Price, Richmond, was elected chairman, and Dr. E. C. S. Taliaferro, Norfolk, clerk, for the ensuing year.

Under miscellaneous business, at the closing session, Friday morning, October the 15th, Dr. J. Shelton Horsley offered a resolution of thanks to the Norfolk County Medical Society, the Norfolk ladies, and the Monticello Hotel management for the entertainment and hospitality extended the members of the Society. This was seconded and adopted.

The name of Major Guy Qualls, M. C., U. S. A., stationed at Fort Eustis, Va., was approved for associate membership, upon the recommendation of Dr. P. E. Tucker.

As the closing hour had come, the retiring president, Dr. W. L. Harris, requested Drs. Israel Brown and Charles R. Grandy to induct the newly elected president, Dr. J. Shelton Horsley, into office. Following a short speech of acceptance of the presidency, the fifty-seventh annual session of the Medical Society of Virginia adjourned *sine die*.

AGNES V. EDWARDS,
Secretary-Treasurer.

Report of Delegates to Fourth Annual Convention of the Woman's Auxiliary to the American Medical Association.

The general meeting was held in the Palm Garden of the Adolphus Hotel, Dallas, Texas, April 21, 1926.

The meeting was called to order by the

President, Mrs. Seale Harris, of Birmingham, Alabama. It was a very large and enthusiastic gathering.

Reports from twenty-four states were read showing the principal work done was co-operating with the medical profession in every way; supporting the Medical Practice Act; assisting the Public Health and Welfare organizations; and educating the public in health matters.

The Auxiliaries were asked to study the health laws in each county and to offer their assistance.

They were asked to tell the "True Story of Medicine" and to urge periodical health examinations, made by regular physicians and not by commercial organizations.

There were many interesting reports from the states, and there was much applause when the report from the Virginia Auxiliary was read, telling of the stand our women had taken with their husbands in fighting the Chiropractic Bill, and of our victory in Virginia.

The Pennsylvania women had also helped to defeat this bill in their state. They report monthly in the *Atlantic Medical Journal*. Their Auxiliary has grown to 754 members in a year. The principal work done is educational, especially cancer control.

Mississippi has a health and sanitation department in their daily paper, edited by a woman and published once a week. They are furnishing a health camp and co-operating with the State Health and Anti-Tuberculosis Associations.

The following is a report of one county in Missouri. Buchanan County is the Banner Auxiliary in the United States promoting "*Hygeia*."

"The money for '*Hygeia*' was supplied for sixty-three subscriptions by proceeds from a card party given by the Auxiliary. These first subscriptions were placed in the rural schools of Buchanan County. Then we appealed to the Medical Society to assist us in placing as many subscriptions as possible in our city schools. The proposition appealed to them so, from their exchequer, they have given us money for 160 subscriptions.

"Still we were not satisfied; so we sent a committee to call on individual doctors and received enough for 51 subscriptions more. In addition to these subscriptions, which were to be donated to teachers, etc., we worked for individual subscriptions from doctors, nurses, parent teachers' association, etc., and received sixty in all. These sixty we consider permanent *bona fide* subscriptions. Three hundred and twenty-five subscriptions in all were sent in in 1925 and eight so far in 1926, making a total of 333 for our auxiliary year."

There were splendid addresses from the two presidents of the American Medical Association, Dr. Wendell Phillips, and the retiring president, Dr. W. D. Haggard. There was also one from Dr. Dodson of the American Medical Association.

Dr. Phillips said, "his first auxiliary to success was his wife," and he had found there was much good work being done by the doctors' wives, besides courage, loyalty and devotion to their husbands. He complimented the Auxiliary for their splendid work in helping to stamp out a deadly menace to Public Health and appealed to the Auxiliary for assistance in preventive medicine.

Mrs. Seale Harris and Mrs. Gengenbach, the two Auxiliary presidents, gave most inspiring talks and much good work was accomplished.

The entertainment side of the meeting was very wonderful. The Dallas Auxiliary was well organized and the entertainments were planned with a great deal of system.

A barbecue for 10,000 guests was given by Dr. and Mrs. Dean.

A Mexican lunch given by the Medical men was for the same number of people.

There was a garden party attended by 1,000 women given by our next national president, Mrs. H. O. McReynolds, of Dallas.

A trip to Fort Worth with a drive and luncheon at the beautiful Woman's Club was given to 350 women by the Woman's Auxiliary of Fort Worth.

The beautiful luncheon at the Country Club was given by the club women to the officers of the Woman's Auxiliary and honoring Mrs. Wendell Phillips, Miss Haggard and Mrs. William Mayo.

The Dallas Auxiliary gave a Roof Garden party and musicale to 1,000 women.

A dinner and garden party, honoring the A. M. A. officers and delegates with their wives, was given by Dr. and Mrs. Cary.

There were numbers of small teas, dinners and banquets.

The President's reception and ball was so large that the two hotel ballrooms, Adolphus and Baker across the street from each other, were used.

The next meeting will be held in Washington and all of you are urged to attend with your husbands, to get the real vision of the Woman's Auxiliary.

Mrs. S. S. Gale, *Delegate*,
Roanoke, Va.

The Rockbridge County Medical Society

Met October 1st, at the home of Dr. and Mrs. E. P. Tompkins in Lexington. Dr. Robert Glasgow, Lexington, presided. The members present were: Drs. Glasgow, Davidson, Leech, Mapp, Mitchell, McClung, Thurman, Tompkins, White, and Vaden. The wives of members had also been asked to attend, and a number of the ladies were there. Some of the doctors and wives living at a distance were probably deterred from coming by reason of the very rainy evening, and slippery roads.

The event of special interest on the program was an address on Radium, given by Dr. A. P. Jones, of the Jefferson Hospital, of Roanoke, an invited guest. His talk was highly instructive and entertaining.

In the election of officers for the ensuing year, the choice for president fell upon Dr. E. P. Tompkins, with Dr. J. E. Seebert and Dr. C. H. Davidson as vice-presidents, and Dr. Howard Mitchell for secretary-treasurer. Dr. Tompkins was selected as the delegate to the State Medical Society meeting in Norfolk.

Upon adjournment of the meeting, the ladies served sandwiches and coffee, and a social hour was enjoyed by all present.

E. P. Tompkins,
Secretary.

Roanoke Academy of Medicine.

The first meeting of the Academy for the year 1926-1927 was held October 4, 1926, at which time the following officers were elected for the coming year: President, Dr. Alvah Stone; vice-presidents, Dr. Paul Davis, and Dr. F. A. Farmer; secretary-treasurer, Dr. Fred E. Hamlin, all of Roanoke.

Delegates to the State meeting were Drs. M. A. Johnson, J. D. Willis, and F. A. Farmer. In the event any of these could not attend they were instructed to appoint their own alternates.

The report of the Judiciary Committee stating that Dr. H. B. Dean did not meet the requirements for membership in the Roanoke Academy of Medicine at the time he was elected was read and accepted. He has now passed the Virginia State Board and would be eligible for membership if he cares to make application for re-election.

Paul Davis,
Secretary.

Warren-Rappahannock-Page County Medical Society.

According to information recently received at this office, Dr. L. F. Hansbrough, Front Royal, is president of this Society, and Dr. Giles B. Cook, also of Front Royal, secretary-treasurer. Dr. James G. Brown, Woodville, was elected delegate and Dr. E. R. Browning, Flint Hill, alternate to the Norfolk meeting of the State Society.

The Lunenburg County Medical Society

Held its regular meeting October 1st, at Victoria, at which time Dr. Harry E. Whaley, Victoria, was elected president, and Dr. J. F. McClellan, Kenbridge, secretary for the coming year. Dr. Whaley was elected delegate, with Dr. E. L. Kendig, Victoria, as alternate to the Norfolk meeting of the State Society.

Loudoun County Medical Society.

At a recent meeting of this Society, Dr. John A. Gibson, Leesburg, was elected president, and Dr. W. D. Sydnor, Hamilton, secretary, for the coming year. Dr. Frank Simpson, Purcellville, was appointed to represent this Society at the State Society meeting in Norfolk.

The Norfolk County Medical Society,

After a short business session on October the 4th, held a Memorial Meeting in memory of four of its beloved members who had died this year—Drs. L. C. Shepherd, R. Lloyd Williams, L. Mendelsohn, and Burnley Lankford. Members of the Woman's Auxiliary and the families of the doctors were in attendance in addition to about one hundred doctors. Beautiful tribute was paid these doctors by Col. R. A. Marr in a paper presented by Dr. C. J. Andrews, Judge W. H. Sargeant, Rev. Louis D. Mendoza, D. D., and Mr. W. W. Old, respectively. Dr. Mendoza touched the key note of the meeting when he stated, "It is our occidental sense of reticence that keeps us from bestowing praise for their virtues upon our friends while they yet live." All of the doctors were extolled for their work in the welfare of their fellowmen and for their leadership in the community life and civic advancement.

Amelia County Medical Society.

At a recent meeting of this Society, Dr. Craig Eggleston, Amelia, was elected presi-

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dent for the ensuing year, Dr. James M. Habel, Jetersville, vice-president, and Dr. G. A. Arhart, Amelia, secretary. Dr. Habel was appointed delegate and Dr. Arhart, alternate to the State Society meeting held last month.

The Northern Neck Medical Society

Held its semi-annual meeting at Kilmarnock, October 28, Dr. B. A. Middleton, of Emmerton, presiding. The attendance was good and papers were read by Drs. Frank Johns, W. Lowndes Peple, and F. W. Lewis, Jr., of Richmond. New officers elected are: President, Dr. H. J. Edmonds, Kilmarnock; vice-president, Dr. F. W. Lewis, Sr., Morattico; secretary-treasurer, Dr. M. C. Oldham, Lancaster. Following the business session, a banquet was held. The next meeting is to be held at Heathsville, in the Spring of 1927.

Miscellaneous

Symposium on Cancer Control.

The American Society for the Control of Cancer held a Symposium on Cancer Control at Lake Mohonk, N. Y., September 20-24, for the purpose of considering the prevention and cure of cancer from a practical standpoint, and to express in concise language the fundamental groundwork of fact and opinion upon which a collective effort may be made in the United States and other countries for the control of cancer. It was believed that there were many things which physicians and surgeons could agree upon, and that if these agreements could be expressed in simple, concise language the results would be of much value.

The program consisted of twenty-seven carefully prepared papers covering practically every phase of the cancer problem. These were read and discussed. Differences of opinion with regard to some of the scientific and theoretical details underlying the present conception of cancer and its causation existed, but when it came to discussing the large and important steps to be taken for the better control of the disease, the meeting was unanimous.

Two resolutions were passed, after careful consideration by a committee and discussion before the whole gathering. One was a proposition to form an international federation in order to bring about more meetings like the Mohonk symposium and publish in at least three languages an index and abstracts of all papers on cancer which appeared anywhere in the world. By resolution this proposition was referred to the many national societies against cancer, with a recommendation that the plan, or one similar to it, be adopted, if, upon further study, means could be found for deferring the cost of the work.

The second resolution was the adoption of a statement of the facts and opinions upon which campaigns against cancer should be conducted.

At a dinner to the foreign guests held in New York at the end of the symposium, and attended by about 250 physicians, Sir John Bland-Sutton declared that the meeting would make medical history. He spoke in part as follows:

"We have had a very strenuous week, and I will say in all my experiences in congresses and association meetings I have never been to one in which there was a more complete absence of acrimony and so much work was accomplished. The zeal which led so many investigators, surgeons and physicians to cross the Atlantic and come from all parts of the American Continent is creditable, and the earnestness they displayed in the conference is beyond all praise. In fact, they were so earnest in their discussions that they even continued them on the hotel porches and in the dining room. This meeting is certain to make medical history."

Dr. Wendell Phillips, President of the American Medical Association, said:

"This meeting has done much to stabilize the knowledge that we have of cancer, and it will clarify the opinions, not only of medical men, but of the public. In this respect it will accomplish what no other meeting has done before. It is a great thing to preach up the right rather than to preach down the wrong, and those who have been at Mohonk have been preaching up the right. They have not been making any attacks on individuals or institutions."

"The great note struck at the Mohonk symposium," declared Dr. Welch, "was the tremendous importance of the cancer question and the appalling problems which it presents. There was never a time when tuberculosis presented problems of such magnitude. The general public and the medical profession must be aroused to the vital importance of efforts to control cancer. However inadequate our knowledge is today, it is an obligation of the

profession to the general community that every effort be made to control this scourge. The community must be taught that all types of cancer are not certainly and inevitably fatal if they are recognized and properly treated at an early stage. Emphasis was placed upon the importance of research work, the need of further additions to our knowledge on the one hand, and equally, upon the necessity of applying our existing information for the saving of human lives and suffering. There is no disease to which larger additions have been made to our knowledge than cancer, but because this knowledge does not reach the public which we are most anxious to reach, this seems trivial. The many papers and discussions will be published, and make a volume which will be an epochal contribution to our knowledge of cancer."

Statement of the Facts and Opinions Agreed to by the International Meeting on Cancer Contol Held at Lake Mohonk, N. Y.

Although the present state of knowledge of cancer is not sufficient to permit of the formulation of such procedures for the suppression of this malady as have been successfully employed for the control of infectious diseases, there is enough well established fact and sound working opinion concerning the prevention, diagnosis and treatment of cancer to save many lives, if this information is carried properly into effect.

1. The causation of cancer is not completely understood, but it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious.

2. Cancer itself is not hereditary, although a certain predisposition or susceptibility to cancer is apparently transmissible through inheritance. This does not signify that, because one's parent or parents or other members of the family have suffered from cancer, cancer will necessarily appear in other persons of the same or succeeding generation.

3. The control of cancer, so far as this subject can be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent co-operation of the patient and physician.

4. Persons who have cancer must apply to competent physicians at a sufficiently early stage in the disease, in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure.

5. Cancer in some parts of the body can be discovered in a very early stage, and if these cases are treated properly the prospect for a permanent cure is good.

6. The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts. Therefore, efforts should be made to improve the methods of diagnosis in these various locations and the treatment of the cancers so discovered.

7. The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject, and induced to seek competent medical attention when any of these indications are believed to be presnet.

8. Practitioners of medicine must keep abreast of the latest advances in the knowledge of cancer in order to diagnose as many as possible of the cases of cancer which come to them.

9. Surgeons and radiologists must make constant progress in the refined methods of technic which are necessary for the diagnosis and proper treatment not only of ordinary cases but of the more obscure and difficult ones.

10. There is much that medical men can do in the prevention of cancer, in the detection of early cases, in the referring of patients to institutions and physicians who can make the proper diagnosis and apply proper treatment, when the physicians themselves are unable to accomplish these results. The more efficient the family doctor is, the more ready he is to share responsibility with a specialist.

11. Dentists can help in the control of cancer by informing themselves about the advances in the knowledge of the causes of cancer, especially with relation to the irritations produced by imperfect teeth and improperly fitting dental plates. They can also help by referring cases of cancer which they discover to physicians skilled in the treatment of cancer in this location. It may be doubted whether all dentists fully realize the help which can be obtained from X-ray photographs in revealing not only the state of the teeth but the condition of the bone surrounding them.

12. Medical students should be instructed

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in cancer by the aid of actual demonstrations of cancer patients, and this to a sufficient extent to give them a good working knowledge of the subject.

13. The most reliable forms of treatment, and, in fact, the only ones thus far justified by experience and observation, depend upon surgery, radium and X-rays.

14. Emphasis should be placed upon the value of the dissemination of the definite, useful and practical knowledge about cancer, and this knowledge should not be confused nor hidden by what is merely theoretical and experimental.

15. Efforts toward the control of cancer should be made in two principal directions: (1) the promotion of research in order to increase the existing knowledge of the subject, and (2) the practical employment of the information which is at hand. Even with our present knowledge many lives could be saved which are sacrificed by unnecessary delay.

Analyses, Selections, Etc.

Plan for Promotion of Periodic Health Examinations.

Our delegates to the Dallas meeting of the American Medical Association presented a most interesting report at the Norfolk meeting (see page 531). An outstanding feature of this report was reference to President Haggard's address before the House of Delegates of the A. M. A., on "Plan for Promotion of Periodic Health Examinations." Several extracts were given, as they felt that to quote Dr. Haggard's address in full would make their report too voluminous.

As this subject is one of paramount importance and one in which every doctor should be interested, we take the liberty of quoting in full the suggestions given by Dr. Haggard, for the purpose of getting the maximum number of patients examined by a maximum number of family physicians:

"1. The House of Delegates should recommend to the thirty-four states that have not yet acted, that the manual be obtained from headquarters at cost price, together with a suitable number of examination blanks, and supplied to each individual member.

"2. The House of Delegates should recommend to the county societies that a special meeting on this subject be held at least once a year in order to popularize the plan and bring it into being.

"3. A medical society clinic emphasizing the need, value, method and technic in the conduct of health examinations, and their bearing on preclinical medicine, should be arranged by local or neighboring clinicians.

"4. A strong, active committee in each county society on periodic health examinations should supervise the inauguration and perpetuation of the health examinations.

"5. A nation-wide educational campaign should be inaugurated during 'Health Week,' or some designated period in co-operation with the existing board of health or with some local activity, such as the Anti-Tuberculosis Association, or other lay organization, to interest the civic clubs and other organizations in the great importance and benefit to be derived from this plan. Health parades with banners carried by Boy Scouts, films, large posters, and folders could be utilized, as was so successfully done by the Illinois State Medical Society.

"6. A statement in the nature of a circular letter should be prepared by the county society and sent impersonally as a statement from the county society to the clientele of the various members, calling their attention to the importance of the annual health examination and urging their acceptance of it at the hands of their physicians.

"7. Many organizations, lodges, clubs, large industrial corporations, etc., could greatly facilitate the idea by having cards mailed to their various members on their birthdays, urging the importance of the acceptance of the birthday physical examination.

"8. The medical society as such should start the campaign by having as many of the individual members as possible to undergo the examination, first, as an educational measure and, second, to imbue the individual members themselves with the importance and far reaching value of the plan. This method was employed by the Medical Society of the County of Kings. Nothing will stimulate the universal application as much as the profession themselves who so sorely need it, utilizing the idea for their own benefit as well as for the advancement of the general scheme.

"9. The press should be requested to carry articles prepared and issued by the county society, preferably unsigned, as a news article or under the signature, if desirable, of the offi-

cers of the society, explaining the importance of periodic physical examinations and the benefit to be derived by the health client.

"These recommendations are to strengthen the work already done, crystallize it and have it activated by the House of Delegates.

"No more humane, scientific and socially and economically beneficient movement for the well being of the American people could be fostered and put into nation-wide practice than the universal periodic health examination by the Amreican Medical Association."

The Truth About Medicine

In addition to the articles enumerated in our letter of August 27, the following have been accepted:

H. K. Mulford Company
- Digitos
  - Digitos Ampules, 1 c.c.
- Solution Pituitary Extract Surgical—Mulford
  - Ampules Solution Pituitary Extract Surgical—Mulford, 1 c.c.

Parke, Davis & Company
- Ovarian Substance Soluble Extract—P. D. & Co.
  - Ampules Ovarian Substance Soluble Extract—P. D. & Co., 1 c.c.

E. R. Squibb & Sons
- Ipral
  - Ipral Tablets, 2 grains

United States Radium Corp.
- Ampules Radium Chloride, 2 c.c.—United States Radium Corp. (radium element, 50 micrograms).
- Ampules Radium Chloride, 2 c.c.—United States Radium Corp. (radium element, 2 micrograms). For drinking use.

NEW AND NON-OFFICIAL REMEDIES

Erysipelas Streptococcus Antitoxin Concentrated—Squibb.—An antitoxic serum (Jour. A. M. A., Aug. 28, 1926, p. 671), prepared according to the method of K. E. Birkhaug, under license of the School of Medicine and Dentistry of the University of Rochester. It is standardized so that 1 c.c. will neutralize at least 50,000 skin test doses of a toxin furnished by the licensor. The product is marketed in syringes containing 15 c.c. E. R. Squibb & Sons, New York.

Diphtheria Antitoxin, Purified, Concentrated—Lilly.—A diphtheria antitoxin concentrated (New and Non-official Remedies, 1926, p. 330), marketed in syringe containers of, respectively, 1,000, 3,000, 5,000, 10,000 and 20,000 units each. Eli Lilly & Co., Indianapolis, Ind.

Antistreptococcic Serum—Gilliland.—An antistreptococcus serum (New and Non-official Remedies, 1926, p. 339), also marketed in 20 c.c. syringes. The Gilliland Laboratories, Inc., Marietta, Pa.

Poison Oak Extract—Lederle (In Almond Oil).—A solution in almond oil of a substance extracted from the fresh leaves of poison oak (Rhus diversiloba). It is used to relieve the symptoms of dermatitis due to contact with poison oak. The product is marketed in 1 c.c. syringes. Lederle Antitoxin Laboratories, New York. (Jour. A. M. A., Sept. 4, 1926, p. 757).

Digitos.—A preparation of water-soluble active principles of digitalis leaves, containing not more than 7 per cent of alcohol. It is standardized so that 1 c.c. is fatal to a 250 Gm. guinea-pig. The actions and uses of Digitos are the same as those of other digitalis preparations. It is suited for hypodermic, intramuscular and intravenous administration, but is not adapted for oral administration. Digitos is also marketed in 1 c.c. ampules. H. K. Mulford Co., Philadelphia.

Solution Pituitary Extract Surgical—Mulford. A slightly acid aqueous solution containing the water-soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle. It has twice the strength of solution of pituitary—U. S. P. X. The actions, uses nad dosage of solution of pituitary are discussed in New and Non-official Remedies, 1926, pp. 281-283. The product is supplied in 1 c.c. ampules. H. K. Mulford Co., Philadelphia. (Jour. A. M. A., Sept. 25, 1926, p. 1037).

PROPAGANDA FOR REFORM

o-Iodoxybenzoic Acid in the Treatmest of Infectious Arthritis.—The Council on Pharmacy and Chemistry publishes a preliminary report on the treatment of infectious arthritis reported on by Drs. Young and Youmans. The authors report that they have treated forty-three cases of chronic arthritis of various types with o-iodoxybenzoic acid and had obtained marked improvement in 50 per cent and moderate improvement in 29 per cent. In some cases sodium iodoxybenzoate was used; in others ammonium iodoxybenzoate, prepared extemporaneously. The Council states that the results of further clinical trials must be awaited before a final evaluation of this method of treatment can be made. The drug is not commercially available at present. The A. M. A. Chemical Laboratory is prepared to examine salts of o-iodoxybenzoic acid when they are placed on the market. (Jour. A. M. A., Sept. 4, 1926, p. 757).

Rad-X-Solution A and Rad-X-Solution B Not Acceptable for N. N. R.—The Council on Pharmacy and Chemistry reports that "Rad-X-Solution A" and "Rad-X-Solution B," marketed by Robert McKnight, are stated to be "radioactive solutions," which are prepared from "pitchblende or ore carrying radioactive ingredients of similar character and quantity." A gamma ray test, made with a very sensitive electroscope, of the specimens which the Council received from Robert McKnight, showed no signs of radioactivity in either sample. The Council found Rad-X-Solution A and Rad-X-Solution B inadmissible to New and Non-official Remedies because they are preparations of indefinite and uncontrolled composition, because they are advertised indirectly to the public, because the claims are unwarranted, and because they are marketed under non-informing names. (Jour. A. M. A., Sept. 4, 1926, p. 775).

More Misbranded Nostrums.—The following "patent medicines" have been the subject of prosecution by the authorities charged with the enforcement of the Federal Food and Drugs Act: Vita Rica Tonic Pills and Laxative (Vita Rica Pharmacal Co.), pills containing compounds of iron, potassium, manganese, mercury, arsenic, zinc, phosphorus and strychnine. King's Formula (William C. King), a liquid in two layers, composed of ether, alcohol, iodine, eucalyptus oil, water and formaldehyde. Kolide (Kolide Laboratories, Inc.), tablets composed of starch, sugar, gum and iodine (approximately 1-5 grain per tablet). Lithadonis (American Apothecaries Co.), tablets containing compounds of lithium and iodine, salicylate, caffeine and a material derived from plant drugs, including laxative. Lippi Blood Purifier Tonic (A. F. Lippi Laboratories), consisting essentially of compounds of iron, arsenic, strychnine, potassium and iodine, with extracts from plant drugs, including a laxative, alcohol, sugar, flavoring and water. (Jour. A. M. A., Sept. 4, 1926, p. 776).

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B. R. TUCKER, M. D., Richmond, Va.
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ALEX. G. BROWN, Jr., M. D.,
Editor.

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Editorial

Pulsus Alternans.

Physical diagnosis rightfully holds foremost position in medical minds of all special and general practitioners. Especially in these times when aids to diagnosis are so largely employed with instruments of precision, and with methods of laboratory examination, is the need for cultivation of the art of physical diagnosis important. In no field of medicine, furthermore, is physical diagnosis more fruitful of good results than that of cardiology. In no wise disparaging or reflecting upon the use of electrocardiographic and sphygmographic study of heart and pulse, one may yet affirm that physical diagnosis of heart conditions is more essential today than ever. This has been brought about by the discovery of new phases of the subject disclosed in physiologic and pathologic behavior of the heart by the employment of the electrocardiograph and the polygraph.

This is illustrated quite well in the instance of pulsus alternans. For many years clinicians have held that this condition is rare and extremely ominous. But electrocardiographic studies show that pulsus alternans occurs much more frequently than it was thought to have occurred. Now that it is known to take place so frequently, as demonstrated in electrocardiograms, physical examination of pulse and heart reveals its presence in cases in which, heretofore, it had been unrecognized. While pulsus alternans has been known and observed by the heart examiners since 1872, it has been considered to be a rare but deadly phase of heart action, as above stated.

Morris* draws attention to the subject and states that White was the first to note the fact that it was relatively common and speaks of it as a common clinical condition.

This sign of heart failure has a prognostic value of considerable worth to one engaged in the management of the crippled heart. The early discovery by physical examination now enables one to take measures to retard the stumbling heart on its way to its final fall. The recognition of pulsus alternans further enables the physician to warn the family and friends of the fatal prospect. This at once prepares them for sudden death, or it may delay that event.

The significance of pulsus alternans in cardiac disease is not easy to explain. Its interpretation rests upon undetermined factors. Some hold to the hypothesis of hemisystole in which the weak systole is due to the single contraction of the right ventricle and the strong beat is due to the combined contraction of both ventricles. Some think it due to "a periodic insufficiency of the papillary system." Some have the opinion that it results from a mere weak contraction followed by a strong contraction. Some hold that portions of the ventricle are capable of responding to one out of every other stimulation. Following each contraction, it is held, the fibers of the heart muscle become refactory for a period, but, normally by the time for the next systole these fibers recover and readily and fully respond to the next normal excitation. In disease of muscle fibers alternating phenomona occur because of the inability of fibers to fully return to normal excitability on time. This subject is interestingly treated by Vaquez in his recent work on the heart. This condition is often overlooked because the signs are not always patent. Some physicians feel that tracings of the pulse are needed to detect it. But one may employ Mackenzie's suggestion in looking for it, when taking blood pressure. The differences of systolic blood pressure readings between the large and small pulses is rather easy. The pitch of the heart sounds, in pulsus alternans, varies as does the pitch of cardiac murmur.

*J. A. M. A., Vol. 87, No. 7, page 463.

Iritis and Focal Infection.

It is safe to say that iritis is nearly always caused by infection remote from the eye. One seems to get this reaction in reading a group of papers, with discussion following, which were presented before the section on Ophthalmology at the seventy-seventh session of the American Medical Association.* The recognition and agreement that iritis is caused even in the large percentage of cases by a previous infection located elsewhere in the body is a conclusion of moment. The relationship between cause and effect, in iritis cases, fixes quite directly a responsibility of search throughout the body in order that the primary cause may be unearthed. The discovery and eradication of the first causal factor in disease is the first real step toward accomplishing a cure. Clinicians have long since agreed upon the fact of such a relationship in arthritis. Especially in gonorrheal arthritis is there a clear cut parallel between primary urethral infection and secondary joint involvement, called, gonorrheal rheumatism. Not only in specific, but also in non-specific arthritis primary infection is suspected and usually found in remote depots of the body: notably, tonsils and teeth, and accessory sinuses, gall-bladder and gall-tract, pelvis of kidney and the prostate.

To repeat, it augurs well for the acceptance of this important "principle" in the domain of disease, to note that a foremost body of medical specialists agrees, if the trend of the papers and the discussion of them may be taken as a criterion of the sentiment of the body, to the fact that iritis is nearly always caused by focal infection. But one must observe that the term "focal infection," as used in this connection, must be extended to cover more than is usually understood by this term. This includes focal infections of tonsils and teeth, accessory sinuses, gall-bladder and gall-tract, prostatitis, syphilis, and tuberculosis and others. It would seem that cases of iritis call for a very thorough physical examination in institution of an adequate search for the real cause. It affords a striking opportunity for the association of the internist with the specialist in the treatment of a malady which calls for skill and effort in each of these and other special workers.

Under the title, "Recurrence of Iritis as Influenced by the Removal of Infections," Irons and Brown* basing their paper on a study of fifty cases and previously reported work, gave an interesting paper on this subject. These authors in 1916 and 1923 reported two series of 100 cases of "iritis." In these cases what was taken to be primary infection, as far as possible, was moved. After a period of three to twelve years, they present a summary of the first fifty cases reporting with "reference to recurrence."

In forty-three of the fifty patients, iritis did not recur during an average period of seven years. It should be noted too that in twenty-three of these forty-three patients there had been previous attacks.

A glance at the table shows that the etiology of two was syphilis, of three was tuberculosis, of ten was dental infection, of seventeen was tonsil infection, and that the remainder were caused by genito-urinary infection, and a combination of the foregoing diseases. In two of the cases the cause of iritis was undetermined. It seems that a period of three to twelve years is a fair period to form an opinion of the accuracy of a conclusion; especially when 50 per cent of these observed cases had had attacks before the one in which the removal of primary focus was practiced.

But in seven of the fifty patients there were recurrences although primary infection was thought to have been removed. However, in four patients the infection was not removed owing to several reasons explained by the authors. In the fifth case there was generalized infection; in the sixth case there was tuberculosis of the lungs; in the seventh case there was some doubt as to diagnosis.

Functional Heart Tests.

It is well known that we have not means by which to test functional power of the heart. For many years clinicians have proposed various methods and procedures but in each proposed test there have been found defects and faults. It is quite natural too, that this should be so. The heart function depends upon numerous factors. The four chambers of the heart may be entirely unlike in normality and in disorder. The resistance to the flow of blood, the periphery, the state of disease of the viscus, and the nature of the blood itself, are but a few of the factors which may

*J. A. M. A., Vol. 87, No. 15, page 1167.

*J. A. M. A., Vol. 87, No. 15, page 1167.

affect the heart function and hence may interfere with a proper testing of the myocardium itself.

In fact, after considering the various proposed tests by exercise, by blood pressure readings, by polygraph and electrocardiograph and radioscopy, one is forced to say that the best test of heart function in any given heart is more reliably determined by a general physical examination of not only the heart itself, but also the body in general. Experience and daily contact with diseased hearts by methods of physical diagnosis enable one to arrive at a judgment of heart function in the most favorable manner.

J. SHELTON HORSLEY, M. D.,
President, Medical Society of Virginia.

One cannot say what are the lines of heart symptoms and signs one relies upon to reach a conclusion of judgment on heart function. Every cardiopath probably receives a rating, mental if not recorded, of the heart function under investigation. This rating may be arrived at quickly or very slowly. One's judgment in diagnosis and prognosis varies much with the nature of the problem presented, whether a quick or slow opinion is formed. The examination of heart by general methods of physical diagnosis probably gives as true a method for testing of heart functions as any.

One test applied has been related to pulse counting. Staehelin, cites Vaques, used a method which consisted in counting the pulse rate before and after walking. Herz practiced testing heart function by noting changes in the pulse rate by flexion of the forearm. Mendelsohn based a test of heart function on the duration of the acceleration of the pulse brought on by exertion. The method of testing the heart some clinicians use is to have the patient hop on one foot for thirty times and then on the other foot for thirty times, then after two minutes count the pulse. If the rate has returned at the end of two minutes to normal, the myocardium is given a "good-bill-of-health" on function. At once it is easy to see that these methods are inaccurate and inadequate.

The graphic tracing of the jugular vein and the heart may give an idea of the co-ordinating function of the heart, which in turn may intimate something of myocardial function and strength. Likewise, electrocardiographic examination of the heart reveals function in the auricles and ventricles. Fluroscopic examination of the heart also gives one another method of reaching an estimation of heart function.

A. G. B., JR.

Our New President.

A man is sometimes elected to an office by means of a successful political campaign, sometimes by the partial favoritism of his friends, and sometimes because of his outstanding merit. It is for this latter reason that Dr. Horsley was recently unanimously elected at Norfolk to the position of President of the Medical Society of Virginia and his selection is therefore a tribute to his high personal character, his unusual

professional achievements and his regular attendance and able contributions to the meetings of the State Association.

Dr. Horsley was born in Lovingston, Virginia, November 24, 1870, and came of old Virginia stock, his ancestors having lived in the State for more than two hundred years. His father, John Horsley, was a student at the Virginia Military Institute and fought with the cadets at New Market. After Hunter burned the Institute he served under Mosby for the remainder of the war.

Dr. Horsley's mother was Rose Evelyn Shelton, daughter of Dr. John Mosby Shelton, of Nelson County, Virginia.

Dr. Horsley attended the public schools in Nelson County, and later went to the University of Virginia where he first took an academic course and then matriculated in the Medical Department from which he received the degree of Doctor of Medicine in 1892.

After graduating at the University of Virginia, Dr. Horsley took a short post-graduate course in New York and then returned to Virginia, practicing his profession first at Lowesville and then at Staunton.

At this early period of his career he gave evidence of his surgical ability and the report he wrote of an operation of hip joint amputation he performed on a colored patient attracted the attention of John A. Wyeth, of New York, who after some correspondence, offered him a position as one of his assistants.

Dr. Horsley went to New York in 1896 and practiced with Dr. Wyeth for two years, but owing to an attack of typhoid fever and broncho-pneumonia he thought it best, on account of his health, to seek a milder climate and therefore moved to El Paso, Texas, where he remained for five years.

Dr. Horsley in 1903 was elected Professor of Principles of Surgery in the Medical College of Virginia and came to Richmond where he has since made his permanent home.

In 1899 Dr. Horsley married Eliza Williamson Braxton, of Chericoke, King William County, Va., who was living at that time with her mother and her brother, Caperton Braxton, at Staunton. To them eight children were born. The elder son is a graduate of the Harvard Medical School, and for the last two years has served as his father's surgical assistant.

Dr. Horsley is an indefatigable worker, and by system and concentration has accomplished much in many varied lines of endeavor. He is a practical surgeon of wide reputation and his private hospital, which he built in 1912, is kept well filled with patients many of whom come from distant states.

He is a scientific investigator and his experiments on blood vessel surgery and intestinal anastomosis, as well as his study of cancer, are well known to the profession. He was awarded a Gold Medal by the Southern Medical Association in 1916 for his original research work.

Dr. Horsley is a clear and forceful writer, and his literary productions have been enhanced in value by the beautiful illustrations of Helen Lorraine whom he employs as his artist. Besides many contributions to medical journals he is the author of "Surgery of the Blood Vessels" published in 1916. "Operative Surgery" first published in 1921 and now in its second edition, and "Surgery of the Stomach and Small Intestines," published by Appleton in 1926.

Dr. Horsley is a regular attendant and active worker not only in local but also in National Medical Associations. He has been President of the Richmond Academy of Medicine and of the Richmond Surgical Society, the Chairman of the Surgical Section of the Southern Medical Association and of the Council on Scientific Assembly of the American Medical Association, and this year is President of the Virginia Academy of Science. He was elected a member of the Phi Beta Kappa Fraternity in 1915 and of the Alpha Omega Alpha Fraternity in 1922 by the University of Virginia.

In honoring Dr. Horsley by electing him its President, the Medical Society of Virginia has honored itself, for his name and reputation will add prestige to the Society and his spirit of scientific enthusiasm will doubtless be reflected in the work of the Association during the coming year.

S. MCG.

News Notes

The Norfolk Meeting

Of the Medical Society of Virginia is now a pleasant memory for our members and the ladies who were fortunate enough to attend. There was a registered attendance of nearly four hundred and fifty doctors—about twenty-

five per cent of our membership and a good proportion in comparison with attendance at other State associations—and about one hundred visiting ladies in addition to those residing in Norfolk. If our membership could realize how much is to be gotten from these meetings in the way of good fellowship as well as scientific interest, we believe there would be an increase in attendance each year.

The Norfolk people "did themselves proud" as usual in the way of entertainment and every body had a good time. On Wednesday evening of the meeting, the president of the Society, Dr. W. L. Harris, of Norfolk, gave a reception and dance to the invited guests, members and their wives and daughters, at the Country Club, and on Thursday, the Norfolk County Medical Society gave an elaborate oyster roast at Cape Henry, which was attended by more than four hundred. In addition to these entertainments, Mrs. Southgate Leigh gave a lovely buffet luncheon for the ladies on Wednesday, and this was followed by a boat trip to the Naval Hospital and Navy Yard, at which place there was an informal reception and dancing. On Thursday evening, the ladies were taken to the theatre while their husbands were attending the scientific meeting. The Woman's Auxiliary held an interesting meeting on Wednesday morning, which will be reported in the next issue of the MONTHLY.

Invited guests at this meeting were Dr. Walter A. Wells, of Washington, D. C., Dr. Olin West, secretary-manager of the American Medical Association, Chicago, Dr. Frank C. Mann, Rochester, Minn., and Dr. Roger H. Dennett, prominent pediatrician of New York City.

The regular golf tournament was held on the opening day, on the links of the Norfolk Country Club. Dr. R. M. Cox, of Portsmouth, won the cup donated several years ago by the Roanoke Academy of Medicine, and Dr. J. R. Bagby, Newport News, won the cup offered this year by the Norfolk-Portsmouth Chamber of Commerce for the best gross score.

Dr. J. Shelton Horsley, Richmond, was elected president, while the time and place of the next annual meeting will be selected by the Executive Council at its mid-winter meeting.

The Association of Surgeons of the Norfolk and Western Railway

Held its annual meeting in Washington, D. C., under the presidency of Dr. Beverley R. Tucker, of Richmond, Va. The doctors and members of their families were guests of the Railway Company while there, and many side trips to places of interest were enjoyed by those in attendance. President Coolidge gave a reception at the White House to the doctors and their families. Dr. Herbert R. Drewry, Norfolk, Va., was elected president for the coming year; Drs. W. H. St. Clair, Bluefield, W. Va., and J. M. Shackelford, Martinsville, Va., vice-presidents; and Dr. T. D. Armistead, Roanoke, Va., was re-elected secretary. Atlantic City, N. J., was selected as the 1927 place of meeting.

Dr. Frank C. Mann,

Of the Mayo Foundation, Rochester, Minn., addressed the students and faculty of the Medical College of Virginia, on October 14th, the day following his address before the Medical Society of Virginia.

Dr. Brown Resigns Professorship.

After teaching for twenty-five years, Dr. Alexander G. Brown, Jr., of Richmond, has resigned from the faculty of the Medical College of Virginia. Dr. Brown was professor of Practice of Medicine in the University College of Medicine and associate professor of Medicine in the Medical College of Virginia during this period. Dr. Brown's resignation was accepted by the Board of Trustees with expressions of regret. The obligations of his private practice were given as reasons for the resignation.

It is understood that Dr. Brown will devote his entire time to the practice of internal medicine and will retain his connection as an internist upon the staff of Stuart Circle Hospital, this city, in order to accommodate his private patients.

Dr. Joseph T. Graham

Has resigned as a member of the medical staff of McGuire Clinic, Richmond, Va., for the purpose of taking charge of internal medicine in a large clinic in one of the Southern states.

Dr. Glenn C. Campbell,

Formerly of Brownsburg, Va., is now located at Morristown, Tenn., where he is continuing the practice of medicine.

Automobile Fatalities.

A report issued by the Department of Commerce announces that there were 4,162 deaths reported from automobile accidents from January 3 to September 11, 1926, in seventy-three

of the principal cities of the United States, with an aggregate population of 31,878,016, or an average of over sixteen deaths a day. This is equivalent to an annual death rate of 18.9 per 100,000 population. There was considerable variation in the number of deaths from month to month, the minimum number for one month in these seventy-three cities being 347, and the maximum number 560.

Some of the deaths were due to accidents which occurred outside the corporate limits of the cities. Of the two Virginia cities on which reports are made, all twelve of the deaths reported in Norfolk were from accidents occurring within the city; only fourteen of the twenty-five deaths in Richmond were from accidents within the city.

Dr. George W. Parson,

Who has been practicing at Raven, Va., for the past four years, has left with his wife for Rochester, Minn., where he has a Fellowship in Medicine in the Mayo Foundation.

Special Demonstrations for Health Officers at Southern Medical Association.

Dr. Roy K. Flannagan, Chairman of the Public Health Section of the Southern Medical Association, which meets in Atlanta on November 15-18, says that the Georgia State Board of Health and the Atlanta Health Department have prepared special health demonstrations for visiting health officers, at the meeting, the program committee having arranged the session of the sections so that there will be no conflict with the rest of the program. The subjects on the program of the Public Health Section are of an exceedingly practical nature.

It may also be said with truth that the whole program of the Association measures up to the highest of any previous year. Virginia should have a large representation of physicians at the Atlanta meeting.

Dr. Roy K. Flannagan, assistant State Health Commissioner, Dr. H. G. Grant, State epidemiologist, and Dr. William R. Culbertson, health officer of Wise County, are the Virginia doctors on the program of the Public Health Section of the meeting in Atlanta, November 15-18.

Dr. J. L. Early,

Who recently resigned as head of the medical staff of the Mathieson Hospital, at Saltville, Va., has located in Radford, Va., for the private practice of medicine.

Married.

Dr. J. Churchill Robertson, Salem, Va., and Miss Margaret Booth Heindl, of Richmond, Va., October 20.

Dr. John Butler Faison, Manasquan, N. J., of the class of '25, University of Virginia, at which time he was appointed an intern at University Hospital, and Miss Mary Elizabeth Murphy, of Clarke County, Va., and Washington, D. C., October 23.

Dr. Ernest Malcolm Wilkinson, Welch, W. Va., and Miss Addie May Johnson, Parksley, Va., October 30. Dr. Wilkinson is an alumnus of the Medical College of Virginia, having graduated from that school in 1923.

Dr. T. Duckett Jones,

Son of Dr. J. Bolling Jones, of Petersburg, Va., and an alumnus of the University of Virginia in the class of '23, after completing a service at the Massachusetts General Hospital, Boston, returned to the University of Virginia at the beginning of this session, and, for the next year, will be on the staff of Internal Medicine. In this connection, he will have charge of the cardiographic machine.

Is Intelligence Inherited?

The "old conclusion that the highest intelligence comes out of stock that is highly developed on both sides" is reached by Grace Allen in a recent study, made for the Eugenics Record Office of the Carnegie Institution, of the families of a group of forty-nine children showing a high intelligence quotient. The study was undertaken to aid in discovering how far superior intelligence is a family characteristic, and covered race and nationality, age, occupation and education of the parents, rating of the homes, neighborhood conditions, mental status in the families, and fecundity and sex rates.

Dr. William W. Rixey,

Of the class of '18, University of Virginia Medical School, recently located in Richmond, with offices in Professional Building. His work is confined to rectal surgery.

Dr. Robley R. Goad,

Of the class of '25, Medical College of Virginia, is taking special work in ophthalmology at the University Hospital, Iowa City, Iowa.

Dr. B. A. Rice,

Forest Depot, Va., is home again after a visit to New York and Washington, D. C.

Changes at Memorial Hospital, Richmond.

After twelve years of faithful service, Mr.

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Frederic B. Morlok recently tendered his resignation as superintendent of the Memorial, Dooley and St. Philip Hospitals of the Medical College of Virginia, effective November 1. In recognition of his efficient service, the college presented him with a handsome silver service, shortly before his departure. During Mr. Morlok's administration, the Dooley and St. Philip Hospitals have been erected, there has been an increase in total current revenue from $80,000 to $258,000 and in value of hospital properties and equipment from $200,000 to $700,000, and an increase in the number of professional and non-professional employees from 113 to 242. Mr. Morlok will take a six months' vacation, motoring to California by easy stages and will visit many of the medical schools and general hospitals in large cities on the way. At the end of his vacation, he will again take up hospital work.

Dr. M. B. Jarman, who graduated from Medical College of Virginia in 1925 and has since been resident surgeon at Memorial Hospital, has been made director of the hospitals and the out-patient clinic. Mr. J. R. McCauley, secretary-treasurer of the Medical College of Virginia, will have charge of all matters pertaining to the repair and unkeep of the buildings and the finances of the hospitals, the two thus dividing the strictly professional and financial affairs.

Dr. R. W. Vaughan,

Richmond, Va., has been elected commander of Post 38, American Legion, to complete the term of the former commander who resigned as he was leaving the city.

Mount Regis Sanatorium Erecting Two Additional Buildings.

Mount Regis Sanatorium is erecting two new private cottages, which, when completed, will offer private accommodations for eight additional patients. They are of stucco construction trimmed in brick and will add greatly to the attraction of the Institution which will then consist of eight separate buildings.

These cottages will have every modern convenience, and are considered the last word in the cottage type of sanatorium construction. Every type of accommodation will then be available from the community porch plan or the private room and porch, to an entire private cottage with sitting room, dressing room, bath and sleeping porch.

Additional driveways and walks are to be completed and an effort will be made to further beautify the grounds.

R. A. Figgatt, of Roanoke, has the contract for the buildings and hopes to have them ready for occupancy within a few weeks.

Notes From State Board of Health.

Dr. John M. Bailey, recently of Amonate, Va., is now health officer of Brunswick County, with headquarters at Lawrenceville, Va. He succeeds Dr. L. H. Lewis, who recently resigned to take up county health work at Kingswood, West Virginia.

A joint health department composed of Southampton and Sussex Counties was organized under State Board of Health auspices on October 1st, with Dr. A. L. McLean as health officer. His headquarters are at Courtland, Va.

Dr. D. H. Anderson is now attached to the State Board of Health in Richmond, Va., as assistant epidemiologist.

Dr. H. W. Decker,

Richmond, Va., addressed the Industrial Committee of the Richmond League of Women Voters, early this month, his subject being "Industrial Hygiene in Virginia."

The Seaboard Medical Association of Virginia and North Carolina

Is to hold its annual meeting at New Bern, N. C., December 7, 8 and 9, 1926. This Association has interesting meetings and is always well attended. An excellent program is being arranged. Dr. George A. Caton, New Bern, N. C., is president, and Dr. Clarence Porter Jones, Newport News, Va., secretary.

Dr. Miller Succeeds Dr. James.

Dr. E. Howe Miller has been appointed surgeon for the Danville and Western Railway Company, at Danville, Va., succeeding Dr. R. Bruce James, now post surgeon at Virginia Military Institute, Laxington, Va.

Dr. G. Foard McGinnis,

Health officer of Isle of Wight County, with headquarters at Smithfield, Va., is now in Baltimore, on leave under scholarship, taking a course in the Johns Hopkins School of Public Health. Dr. McGinnis is an alumnus of the University of Virginia, in the class of '25.

Dr. G. H. Warren, of the class of '25, Medical College of Virginia, is carrying on the health work in Isle of Wight during Dr. Ginnis' absence.

Dr. R. F. Thornhill,

Of the staff of the Pulaski (Va.) Hospital, returned to his home the first of October, after several weeks spent in post-graduate study in New York.

The Elizabeth City (N. C.) Hospital

Was formally re-opened early in October, after several weeks in renovating, getting a new force of nurses and new equipment. Drs. John Saliba and M. S. Bulla are to be the surgeons in charge, with a complete corps of physicians for non-operative cases.

Dr. W. A. Shepherd,

Richmond, has been elected chairman of the Medical Staff of the Hospital Division of the Medical College of Virginia, for the ensuing year. Dr. J. L. Tabb is vice-chairman and Dr. J. G. Lyerly secretary. At these meetings, there are discussions with regard to the patients under treatment and also any unusual cases which may have occurred in any of the College hospitals during the preceding month.

Dr. J. B. Harvie Waring,

Blanchester, Ohio, has opened offices in Suite 3, Egan Building, Wilmington, Ohio, where he limits his practice to eye, ear, nose and throat, and physiotherapy.

Dr. Edward Sandidge,

Amherst, Va., recently spent a short time with some friends on a fishing trip in North Carolina.

U. S. Civil Service Examinations.

The U. S. Civil Service Commission, Washington, D. C., announces open competitive examinations for the following, applications to be rated as received until December 30th:

Medical interne (psychiatric);

Junior medical officer, assistant medical officer, associate medical officer, medical officer, and senior medical officer;

Graduate nurse and graduate nurse (visiting duty).

The Commission states that there is also a vacancy in a position of specialist in pathology at the Veterans' Bureau Hospital, Knoxville, Iowa, and that applications are being received for the place, the entrance salary of which is $3,800 a year.

Dr. I. K. Briggs

Has returned to his home in South Boston, Va., after attending the Kiwanis convention in Roanoke, Va.

Dr. W. B. Richardson,

For several years at Arvonia, Va., expects to leave that place the middle of November for Heathsville, Va., where he will be located for the practice of medicine.

Dr. Porter to Return to Richmond.

Dr. William B. Porter, formerly of this city, but for the last few years a member of the staff of the Lewis-Gale Hospital, Roanoke, Va., has been employed as whole-time professor of medicine at the Medical College of Virginia, his work in the College to begin next summer. He expects to leave Roanoke early in the coming year, however, and will study educational procedure in leading American and European universities and will take an intensive couse abroad in cardio-vascular and metabolic diseases.

Dr. E. G. Hill,

Richmond, Va., was appointed coroner of South Richmond, November the 1st, to fill the vacancy caused by the death of Dr. John W. Brodnax, who held this position for thirty-four years.

Officers in the American Legion.

The Petersburg (Va.) Post of the American Legion, at its meeting last month, re-elected Dr. L. S. Early of that city commander. Dr. E. J. Nixon was elected a member of the executive committee.

"Every Diphtheria Death is Due to Neglect."

This statement is made by the State Board of Health in a bulletin just issued, in which it is further announced that there are more cases of diphtheria than usual, this year, and that the disease is widely spread in Virginia. As toxin-antitoxin is as much a preventive for diphtheria as vaccination for smallpox, every child is entitled to this protection from that dread scourge—diphtheria. The immunization takes some months to become effective, and, for that reason, the toxin-antitoxin is best given in the spring so as to be effective with the opening of the school season. In view of the number of cases beieng reported throughout the State, however, it would not be amiss to give this protection to all children possible even at this time.

The American Public Health Association

Held its fifty-fifth annual meeting at Buffalo, N. Y., October 11th to 15th. Dr. W. A. Plecker, Dr. H. G. Grant, Dr. W. B. Foster, Mr. A. H. Straus, of Richmond, and Mr. H. L. Freese, of Norton, attended the meeting.

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Unfortunately, a conflict in dates with the Medical Society of Virginia, prevented several of our public health officials from getting to Buffalo, and also those who went to Buffalo were prevented from attending the meeting in Norfolk. The meeting of the A. P. H. A. was unusually well attended and one of the most interesting in some years.

The report of Dr. Haven Emerson, Chairman of the Committee on Communicable Diseases, was of special interest. This report will shortly be published by the *U. S. Public Service*, and furnishes a most interesting compendium of our present knowlege of the communicable diseases.

A paper was given by Dr. W. A. Plecker, on "Importance to the Child of Accurate Birth Registration" before the Vital Statistic section, and one by Mr. Aubrey H. Straus before the Laboratory section, on "The Distribution of Enteric Infections in Virginia."

Dr. Charles V. Chapin, Providence, R. I., was elected president for the coming year.

Two Virginia Doctors Honored.

Drs. S. S. Gale, of Roanoke, and Everett E. Watson, of Salem, have just been elected to active membership in the American Society for Thoracic Surgery, the active membership of which is limited to one hundred.

Dr. A. M. Showalter,

Christiansburg, Va., has been elected a member of the board of directors of the Chamber of Commerce, recently organized in that place.

Dr. Paul Redd,

Yorktown, Va., who has been quite sick, is out again and has been visiting friends in Richmond while recuperating.

An Aid to the Medical Practitioner.

Physicians treating venereal disease cases have frequently expressed a need for a pamphlet containing instructions and advice to be given to venereal disease patients. Due to the nature of these diseases and the regimen which proper treatment requires, the need for such a publication has long been apparent. Some time ago the U. S. Public Health Service prepared a pamphlet known as "Important Confidential Information" expressly for this purpose. The leaflet is in two parts, one dealing with Gonorrhea and the other with Syphilis. Advice is given among other points on the following: Importance of continuing treatment until cured, proper diet while under treatment, proper care to prevent the spread of the disease, the futility and danger of quacks and self-treatment, sex conduct and marriage.

Many physicians have found this publication a valuable aid in securing the co-operation of the patient while under treatment and also as an aid in holding the patient until cured or rendered non-infectious. Copies of this publication are available from most State Departments of Health or they may be secured by writing to the U. S. Public Health Service, Washington, D. C.

Dr. John A. Gibson,

Leesburg, Va., has been appointed coroner for Loudoun County, Va., to succeed the late Dr. William C. Orr.

Georgia to Have Physician Governor.

By virtue of his nomination as governor, it is announced that Dr. Lamartine G. Hardman, of Commerce, will become governor of Georgia next June. In this event, he will be Georgia's first physician governor. Dr. Hardman has practiced his profession in that State for a number of years, and has always taken a prominent place in the political, business and medical life of the State.

Portrait Presented Epileptic Colony.

At a recent meeting of the board of directors of the State hospitals, a portrait of the late Dr. A. S. Priddy, first superintendent of the State Colony for Epileptics and Feebleminded, near Lynchburg, Va., was presented to the board.

Pan-American Child Congress.

The fifth Pan-American Child Congress will be held in Havana, Cuba, next February and will include an international child-welfare exposition. The Government of the United States has been invited to participate. The Congress will be divided into six sections, medicine, hygiene, sociology, education, psychology, and legislation.

"Trembles" and "Milk Sickness."

The close relation between the disease known as "trembles" in cattle and "milk sickness" of persons has been the subject of scientific investigation for many years. A recent outbreak of the disease in Illinois caused the death of fifteen persons. The outbreak is a repetition of many similar ones throughout the country and recalls heavy death losses among early pioneers from a mysterious disease.

Recent experiments by Dr. James F. Couch, of the Bureau of Animal Industry, supplementing those of other investigators, show con-

clusively that poisonous plants cause trembles in animals, that animals also may be poisoned without showing symptoms of trembles, and that milk and butter from cows so poisoned are dangerous to the consuming public. In the East and Central West the poisonous plant is the richweed, also known as white snakeroot. In Texas and New Mexico, where the animal malady is called "alkali disease," the poisonous plant is the rayless goldenrod.

As there usually follows a long period of illness and reduced vitality, even when milk sickness is not fatal to man, stock owners are advised to combat the poisonous plants mentioned by pulling or digging them up wherever found. Especially during the fall animals also should be kept out of pastures infested with the poisonous plants.

As a further means of combating milk sickness and diagnosing suspected cases, Dr. Couch has developed a laboratory test for tremetol. Directions for making the test will be furnished on application to the Pathological Division of the Bureau of Animal Industry, United States Department of Agriculture, Washington, D. C.

Dr. and Mrs. T. E. Armstrong,

Of City Point, Va., celebrated their silver wedding anniversary on October the 30th, with a Halloween dance and reception at the Du-Pont Club, in that place.

Dr. and Mrs. James Morrison,

Lynchburg, Va., are home again after a visit to friends in Winchester, Va.

Dr. Frank B. West,

Of the class of '26, Medical College of Virginia, after a service at Hygeia Hospital, Richmond, is now located at Laurel Fork, Va.

A Successful Business.

An undeniably successful venture in public service is the Christmas seal sale which is held annually throughout the country and which is again before us. Like all big business enterprises, its growth is due to the commonly prescribed rules for success; namely, vision, hard work, thrift, and giving the public what it wants.

Within twenty years this undertaking, which is the chief support of the national, state and local tuberculosis associations of the United States, has developed from a $3,000 business to one whose gross receipts in 1925 were approximately $4,900,000. From a tiny hospital for tuberculous patients in Delaware which was financed by the first $3,000 in 1907, it has become the means for creating a network of sanatoria, hospitals, open air schools, clinics, and other public health activities that protect the American people against what was once known as the Great White Plague.

According to the National Tuberculosis Association, the mother of this gigantic movement, the Christmas seal sale finances approximately 1,500 state and local organizations besides the National Association. The united efforts of these have resulted in the establishment of 700 sanatoria and hospitals, with nearly 70,000 beds for tuberculous patients; more than 1,000 open air schools; nearly 12,000 public health nurses ;and over 600 clinics. In addition, children's camps and preventoria, nutrition classes and numerous special campaigns such as Baby Weeks, Anti-spitting and Open Window campaigns are made possible by these little penny stickers.

All but 5 per cent of seal sale money is spent in the communities where it is raised. The 5 per cent goes to the national body which acts as a clearing house for information, supplies, leadership, research and expert service for its affiliated organizations, and for the other allied institutions and agencies.

Altogether, the record of the tuberculosis Christmas seal inspires the confidence and continued patronage of its millions of supporters.

Dr. and Mrs. Adrian Baldwin

Celebrated the forty-sixth anniversary of their marriage at their home at North Fork, Va., on October 27th.

N. C. State Health Officer.

Dr. Charles O. H. Laughinghouse, Greenville, N. C., the newly eleected State Health Officer of North Carolina, entered upon his duties in Raleigh on October 1st.

The South Piedmont Medical Society

Is to hold its regular semi-annual meeting in South Boston, Va., November 16th, under the presidency of Dr. E. Howe Miller, of Danville. Dr. G. A. Stover, South Boston, is secretary-treasurer. An interesting program to include a symposium on "Diseases of Childhood" has been arranged. Those to discuss this subject will be Drs. Dwight Rivers, D. P. Peters and Bernard H. Kyle, of Lynchburg, and Dr. L. T. Royster, of University.

Epidemic Prevention Part of Disaster Relief.

Prevention of epidemics following disasters which leave wreckage and other devastation

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behind, is one of the first important steps which Red Cross relief workers have learned to take.

A tropical hurricane which devastated the town of Houma, Louisiana, late in the summer, offers an example of this work. Seeing in the conditions following the disaster the possibilities of a typhoid epidemic, the relief workers sought and obtained the co-operation of the Louisiana State Board of Health, in the task of inoculating all persons in the danger area. The State supplied a laboratory boat, two bacteriologists and a nurse to aid local health officers and the Red Cross, and at latest reports several thousand persons had been inoculated against possibility of disease. The State Conservation Department, also at the suggestion of the Red Cross, sent a boat to supply fresh water. No epidemic had developed as this was written.

In this disaster, it was expected that at least two months would be required to complete the Red Cross relief operations, which include permanent rehabilitation for those in need of such assistance. Disaster relief is an outstanding duty of the American Red Cross, and it is to maintain this, and all its other valuable services, that the co-operation of the people, through membership in the organization, is sought during the Annual Roll Call, November 11th to 25th, this year.

Community Backyard Playgrounds.

A new plan for playgrounds in sections where children have no play space other than city streets is suggested in the recent appeal of the Park Commissioner of Brooklyn, N. Y., to remove fences between backyards and permit use of the space thus afforded as community playgrounds. The Park Commission offers by way of illustration a survey made by its officials of a typical residential block, with a design for a playground layout, and will co-operate with suggestions for laying out the grounds and advice in regard to equipment.

Dr. E. N. Lillard,

Formerly of Madison County, Va., is now located in Miami, Fla., where he is engaged as Medical Officer with the city health department.

Dr. and Mrs. J. G. Carter,

Richmond, Va., are spending sometime in Philadelphia, where Dr. Carter is taking special work at the University of Pennsylvania.

The Ex-Interns' Association of St. Elizabeth's Hospital, Richmond,

Held its third annual meeting at the hospital, in this city, October 5th. Fifteen of the twenty-three members were present and an excellent scientific program was presented, Dr. Wright Clarkson, of Petersburg, Va., presiding. Between the morning and afternoon sessions, luncheon was served at the Commonwealth Club and, in the evening, Dr. J. Shelton Horsley entertained the members at supper at his home in Westmoreland Place. Dr. E. L. Caudill, Narrows, Va., was elected president, Dr. R. H. Wood, Atlanta, Ga., vice-president, and Dr. J. S. Horsley, Jr., was re-elected secretary-treasurer.

Mortality Statistics.

Some interesting facts brought out with regard to mortality statistics for 1925 in Virginia are that diseases of the heart and the circulatory system claim first place as the cause of death. Nearly thirty per cent of the deaths in Virginia were due to diseases involving the circulation of the blood. There were nineteen deaths from rickets—six white and thirteen colored. For the first time since the organization of the Bureau of Vital Statistics, 1925 failed to show a decline in the death rate from typhoid fever over the preceding year. This fact was not confined to Virginia, however, as every southern state showed a higher death rate from this disease, and, for the first time in many years, a higher typhoid rate was recorded for the entire registration area throughout the United States.

Dr. and Mrs. A. M. Sneed,

Of Toano, Va., have recently returned home from a two weeks' motor trip to Niagara, Canada and New York City.

Dr. Matas Honored.

It is announced that the Jacob Bigelow Medal has been awarded by the Boston Surgical Society to Dr. Rudolph Matas, of New Orleans, for being one of the men who has done most for the advancement of surgery. Previous awards of this honor were to Dr. William J. Mayo, of Rochester, Minn., and to Dr. William W. Keen, of Philadelphia.

Nicholas Senn Beckett,

Youngest son of Dr. and Mrs. H. C. Beckett, of Chase City, Va., has recently received the appointment of prosecuting attorney for the U. S. Government, and is located in the Revenue Department in Philadelphia.

Dr. and Mrs. J. C. Moxley,

Of Independence, Va., left the middle of October for New York, where Dr. Moxley will take a special course of study and attend clinics for several months. They will also visit Philadelphia and other Northern cities while away.

Dr. B. B. McCluer,

Of Speedwell, Va., has returned home after a visit to his parents in Bon Air, Va.

The Virginia Pediatric Society

Was organized in Norfolk, during the meeting of the Medical Society of Virginia, for the purpose of advancing the cause of pediatrics in this State. Dr. N. Thos. Ennett, Richmond, was elected president, Dr. L. T. Royster, University vice-president, and Dr. W. B. McIlwaine, Petersburg, secretary-treasurer.

Dr. J. Beverly DeShazo,

Formerly of Ridgeway, Va., is now in his office at that place only one day each week, the rest of his time being given to the practice of dermatology and urology at Burlington, N. C. He still retains his citizenship in this State, however.

Miss Welhelmina Wright,

Daughter of Dr. and Mrs. J. A. Wright, of Doswell, Va., was quite badly hurt early this month, when an automobile ran into the back of her car, causing her to be thrown through the windshield. She suffered several very bad cuts, which rendered her unconscious for sometime, but was reported better as we went to press.

Dr. Louis E. Foulks

Returned to Alexandria, Va., the middle of October, after a trip of several months, during which time he also visited his former home in New Jersey.

Edmunds Hospital,

Danville, Va., has purchased a residence near the hospital to be used as a nurses' home, and will convert the building now occupied by the nurses into a part of the hospital, thus giving increased accommodations for patients and necessary hospital rooms.

The Association of American Medical Colleges,

At its meeting the last of October, elected Dr. Charles F. Martin, of Montreal, president, and Dr. Fred C. Zapffe, Chicago, secretary. The next meeting is to be held in Montreal.

Dr. J. Bolling Vaiden,

Formerly of New Kent C. H., Va., has located at Highland Springs, Va., where he is associated with Dr. Jas. T. Leftwich.

Development Record.

In response to requests frequently made of the American Child Health Association, 370 Seventh Avenue, New York City, they have issued a Development Record designed by Dr. Borden Veeder, of St. Louis, which is adapted for the use of the physician in his private practice as a simple and practical examination form for pre-school children. The form may be had in quantities of 25 at the price of $1.75, larger quantities being relatively cheaper.

Southern Medical Association.

Good scientific programs, entertainments, sports, reunion dinners, etc., are in store for those attending the twentieth annual meeting of the Southern Medical Association in Atlanta, Ga., November 15, 16, 17 and 18. If not yet a member, you are eligible to membership if a member of your State Medical Association, so secure a certificate of membership and attend if you want to take a pleasant vacation. Dr. C. C. Bass, of New Orleans, is this year's president.

Dr. Adrian X. Urbanski,

Of the class of '24, Medical College of Virginia, having completed a service at the Newark (N. J.) City Hospital, has established his offices at 148 Market Street, Perth Amboy, N. J., for the practice of his profession.

The Tenth District Medical Society of North Carolina,

At its semi-annual meeting recently, elected Dr. Charles Z. Candler, of Sylva, president, and Dr. Donald M. McIntosh, of Old Fort, secretary-treasurer.

Child-Health Examination in Chicago.

148,000 children in the schools of Chicago were examined last year through the work of the Chicago Municipal Tuberculosis Sanitarium. 100,000 of the children were in kindergarten or first grade. 110,000 were found with defects serious enough to need treatment, and 43 per cent of these received the necessary corrections of defects.

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Wanted—

Second interne, January 1, 1927, Roanoke Hospital, Roanoke, Va. 110 beds, general service. Salary $75.00 per month and maintenance. Apply to the Superintendent. (Adv.)

Dentist Wishes Location.

Dentist with several years' experience wishes to locate in one of the cities or towns of Virginia or West Virginia. Would consider association with physician or specialist. Address No. 8, care this journal. (Adv.)

Wanted—

By or before January 1st, position in doctor's office, by woman experienced in laboratory, X-ray and secretarial work. References. Address No. 7, care this journal. (Adv.)

Obituary

Dr. Humphrey Singleton Belt,

South Boston, Va., well known and beloved physician and surgeon of Southern Virginia, died October 9th, from angina pectoris. Though Dr. Belt's health had not been good for the past year, his condition had not been considered serious. He was born near Chatham, Va., fifty-seven years ago. After studying medicine at the University of Virginia, he went to Baltimore and studied for a year, taking his diploma from the University of Maryland in 1892. He located in South Boston about thirty years ago and established the Halcyon Hospital in that place about seventeen years ago, constantly making additions to the hospital to care for its increasing number of patients. He had been a member of the Medical Society of Virginia since 1904. His wife and two sons survive him.

As a memorial to Dr. Belt, a number of the citizens of South Boston and vicinity are planning to take over the Halcyon Hospital which he established and owned and continue its service to the community.

Dr. John Wilkins Brodnax,

Richmond, Va., associate professor of anatomy at the Medical College of Virginia and known and loved by many alumni of that school for his geniality of manner and ability, died at a local hospital, October 20, at the age of sixty-two years. He was a native of Petersburg, Va., and studied medicine at the Medical College of Virginia, from which he graduated in 1891 and joined the Medical Society of Virginia two years later. Upon establishment of the former University College of Medicine in this city, he became a demonstrator in anatomy, and, upon consolidation of the two Richmond schools, was made associate professor in this branch, which position he held to the time of his death. He had been coroner of Manchester (later South Richmond) for more than thirty years. Dr. Brodnax was talented as an artist and sculptor, as well as an anatomist, and had made many notable drawings and paintings, especially in anatomy. As a sculptor, he is perhaps best remembered by the bust he made of Dr. Hunter McGuire, which was placed in the Medical College of Virginia building. Dr. Brodnax is survived by his wife and seven children and three sisters.

Dr. James M. Gibson,

Beloved physician of Suffolk, Va., died in that place October 10th, at the age of seventy-two years. He was a native of Ohio, and received his diploma in medicine from the Columbus Medical College, Columbus, Ohio, in 1874. He had been a member of the Medical Society of Virginia since 1899. A son, Dr. W. C. Gibson, resides in Suffolk.

Dr. John T. Wilkins,

Retired physician of Bridgetown, Va., died at a Norfolk hospital, October 12. He was seventy-three years of age and was formerly a member of the State Legislature and former chairman of the Virginia Commission of Fisheries. Two daughters and a son survive him. One of his daughters is the wife of Dr. W. L. Dalby, of Bridgetown.

Dr. William W. Faison,

For twenty years superintendent of the N. C. State Hospital for the Colored Insane, Goldsboro, N. C., died suddenly in his office, October 22nd. He was seventy-two years of age and had studied medicine at Jefferson Medical College, Philadelphia, from which he graduated in 1878.

Dr. Francis Miles Chisolm,

Washington, D. C., formerly associate professor of ophthalmology in the University of Maryland School of Medicine, died September 21, aged fifty-nine years. He had graduated from the University of Maryland School of Medicine in 1889 and saw service in the World War.